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WEALTH AND PROGRESS

OF

NEW SOUTH WALES.

THE

WEALTH AND PROGRESS

OF

NEW SOUTH WALES

1896-7.

BY

T. A. COGHLAN,
GOVERNMENT STATISTICIAN.

TENTH ISSUE.

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HISTORICAL SKETCH.

IT is impossible to say who were the first discoverers of Australia, although there is evidence that the Chinese had some knowledge of the continent as far back as the Thirteenth Century. The Malays also would seem to have been acquainted with the northern coast; while Marco Polo, who visited the East at the close of the Thirteenth Century, makes reference to the reputed existence of a great southern continent. There is in existence a map, dedicated to Henry the Eighth of England, on which a large southern land is shown, and the tradition of a Terra Australis appears to have been current for a long period before it enters into authentic history.

In 1503, a French navigator named Binot Paulmyer, Sieur de Gonneville, was blown out of his course, and landed on a large island, which was claimed to be the great southern land of tradition, although Flinders and other authorities are inclined to think that it must have been Madagascar. The Portuguese also advance claims to be the first discoverers of Australia, but so far the evidence cannot be said to establish their pretensions. As early as 1598, Wytfliet describes the Australis Terra as the most southern of all lands, and proceeds to give some circumstantial particulars respecting its geographical relation to New Guinea, venturing the opinion that, were it thoroughly explored, it would be regarded as a fifth part of the world.

Early in the Seventeenth Century, Philip the Third of Spain sent out an expedition from Callao, in Peru, for the purpose of searching for a southern continent. The little fleet comprised three vessels, with the Portuguese pilot, De Quiros, as navigator, and De Torres as admiral, or military commander. They left Callao on the 21st December, 1605, and in the following year discovered the island now known as Espiritu Santo, one of the New Hebrides Group, which De Quiros, under the impression that it was indeed the land of which he was in search, named "*La Austrialia del Espiritu Santo.*" Sickness and discontent led to a mutiny on De Quiros' vessel, and the crew, overpowering their officers during the night, forced the captain to navigate his ship to Mexico. Thus abandoned by his consort, De Torres, compelled to bear up for the Philippines to refit, discovered and sailed through the strait that bears his name, and may even have caught a glimpse of the northern coast of the Australian Continent. His discovery was not, however, made known until 1792, when Dalrymple rescued his name from oblivion, bestowing it upon the passage which separates New Guinea from Australia. De Quiros returned to Spain to re-engage in the work of petitioning the king to despatch an expedition for the purpose of prosecuting the discovery of the Terra Australis. He was finally successful in his petitions, but died before accomplishing his work, and was buried in an unknown grave in Panama, never being privileged to set his foot upon the continent the discovery of which was the inspiration of his life.

During the same year in which De Torres sailed through the strait destined to make him famous, a little Dutch vessel called the Duyfhen, or dove, set sail from Bantam, in Java, on a voyage of discovery. This ship entered the Gulf of Carpentaria, and sailed south as far as Cape Keerweer, or turn-again. Here some of the crew landed, but being attacked by natives, made no attempt to explore the country. In 1616, Dirk Hartog discovered the island bearing his name. In 1622 the Leeuwin, or lioness, made some discoveries on the south-west coast; and during the following year the yachts Pera and Arnhem, explored the shores of the Gulf of Carpentaria. Arnhem Land, a portion of the Northern Territory, still appears on many maps as a memento of this voyage. Among other early Dutch discoverers were Van Edels; Poel, in 1629, in the Gulf of Carpentaria; Nuyts, in the Gulde Zeepaard, along the southern coast, which he called, after himself, Nuyts Land; De Witt; and Pelsart, in the Batavia. Pelsart was wrecked on Houtman's Abrolhos; his crew mutinied, and he and his party suffered greatly from want of water. The record of his voyage is interesting from the fact that he was the first to carry back to Europe an authentic account of the western coast of Australia, which he described in any but favourable terms. In 1642, Abel Janszen Tasman took up the work of Dutch discovery, and added Tasmania (long known as Van Diemen's Land), and New Zealand to the geographical knowledge of the day. He subsequently made a voyage to the Gulf of Carpentaria, and examined the northern coast.

The first English navigator to sight the Australian continent was William Dampier, who made a visit to these shores in 1688, as supercargo of the Cygnet, a trader, whose crew had turned buccaneers. On his return to England he published an account of his voyage, which resulted in his being sent out in the Roebuck in 1699 to further prosecute his discoveries. To him we owe the exploration of the coast for about 900 miles—from Shark Bay to Dampier's Archipelago, and thence to Roebuck Bay. He appears to have landed in several places in search of water. His account of the country was quite as unfavourable as Pelsart's. He described it as barren and sterile, and almost devoid of animals, the only one of any importance somewhat resembling a racoon—

a strange creature, which advanced by great bounds or leaps instead of walking, using only its hind legs, and covering 12 or 15 feet at a time. This is the first notice of the kangaroo which has come down to us. Between Dampier's first and second voyage Vlamingh visited the south-west coast, and entered and named the Swan River, so called from the number of black swans in the locality.

The great voyage of James Cook, in 1769-70, was primarily undertaken for the purpose of observing the transit of Venus, but he was also expressly commissioned to ascertain "whether the unexplored part of the Southern Hemisphere be only an immense mass of water, or contain another continent." The vessel fitted out for the voyage was a small craft of 320 tons, carrying twenty-two guns. She was built originally for the coal service, with a view rather to strength than to speed. Chosen by Cook himself, she was renamed the Endeavour, in allusion to the great work which her commander was setting out to achieve. Mr. Charles Green was commissioned to conduct the astronomical observations, and Sir Joseph Banks and Dr. Solander were appointed botanists to the expedition. After successfully observing the transit from the island of Tahiti, or Otaheite, as Cook wrote it, the Endeavour's head was turned south, and then north-west, beating about the Pacific in search of the eastern coast of the great continent whose western shores had been so long known to the Dutch. Circumnavigating and minutely surveying New Zealand, Cook then stood due west, in order to carry out the instructions given him.

After a voyage of nearly three weeks, Cook, on the 19th April, 1770, sighted the eastern coast of Australia, at a point which he named after his first lieutenant, who discovered it, Point Hicks. This he placed in latitude 38° south and longitude 148° 50′ east; but no such headland has since been identified, and it is thought Cook must have been deceived in some manner by the sandhills of the Ninety-mile Beach. Four leagues farther to the north-east he discovered and named Ram Head, but the first important point observed was a bare and sandy headland, to which he gave the name of Cape Howe.

After passing and naming Mount Dromedary, the Pigeon House, Point Upright, Cape St. George, and Red Point, Botany Bay was discovered on the 28th April, 1770, and as it appeared to offer a suitable anchorage, the Endeavour entered the bay and dropped anchor. The ship brought-to opposite a group of natives, who were cooking over a fire. Cook and his crew, unacquainted with the character of the Australian aborigines, were not a little astonished that these natives took no notice of them or their proceedings. Even the splash of the anchor in the water, and the noise of the cable running out through the hawse hole, in no way disturbed them at their occupation, or caused them to evince the slightest curiosity. But as the captain of the Endeavour ordered out the pinnace and prepared to land, the natives threw off their nonchalance; for on the boat approaching the shore, two men, each armed with a bundle of spears, presented themselves on a projecting rock and made threatening signs to the strangers. It is interesting to note that the ingenious "wommera," or throwing-stick, which is peculiar to Australia, was first observed on this occasion. As the men were evidently determined to oppose any attempt at landing, a musket was discharged between them, in the hope that they would be frightened by the noise, but it produced no effect beyond causing one of them to drop his bundle of spears, of which, however, he immediately repossessed himself, and with his comrade resumed the same menacing attitude. At last one cast a stone towards the boat, which earned him a charge of small shot in the leg. Nothing daunted, the two ran back into the bush, and presently returned furnished with shields made of bark, with which to protect themselves from the firearms of the crew. Such intrepidity is certainly worthy of passing notice. Unlike the American Indians, who supposed Columbus and his crew to be supernatural beings, and their ships in some way endowed with life, and who were thrown into convulsions of terror by the first discharge of firearms which they witnessed, these Australians were neither excited to wonder by the ship, nor overawed by the superior number and unknown weapons of the strangers. Cook examined the bay in the pinnace, and landed several times; but by no endeavour could he induce the natives to hold any friendly communication with him. The well-known circumstance of the great variety of new plants here obtained, from which Botany Bay derives its name, should not be passed over. Before quitting the bay the ceremony was performed of hoisting the Union Jack, first on the south shore, and then near the north head, formal possession of the territory being thus taken for the British Crown. During the sojourn in Botany Bay the crew had to perform the painful duty of burying a comrade—a seaman named Forby Sutherland, who was in all probability the first British subject whose body was committed to Australian soil.

After leaving Botany Bay, Cook sailed northward. He saw and named Port Jackson, but forebore to enter the finest natural harbour in Australia. Broken Bay and other inlets, and several headlands, were also seen and named, but the vessel did not come to an anchor till Moreton Bay was reached, although the wind prevented Cook from entering this harbour. Still sailing northward, taking notes as he proceeded for a rough chart of the coast, and landing at Bustard and Keppel Bays and the Bay of Inlets, Cook passed over 1,300 miles without the occurrence of any event worthy of being chronicled, till suddenly one night at 10 o'clock the water was found to shoal, without any sign of breakers or land. While Cook was speculating on the cause of this phenomenon, and was in the act of ordering out the boats to take soundings, the Endeavour struck heavily, and fell over so much that the guns, spare cables, and other heavy gear had at once to be thrown overboard to lighten the ship. As day broke, attempts were made to float the vessel off with the morning tide; but these were unsuccessful. The water was rising so rapidly in the hold that with four pumps constantly going the crew could hardly keep it in check. At length one of the midshipmen suggested the device of "fothering," which he had seen practised in the West Indies. This consists in passing a sail, attached to cords, and charged with oakum, wool, and other things, under the vessel's keel, in such a manner that the suction of the leak may draw the canvas into the aperture, and thus partially stop the vent. This was performed with great success, and the vessel was floated off with the evening tide. The land was soon after made, near the mouth of a small stream, which Cook called, after the ship, the Endeavour River. A headland close by he named Cape Tribulation. The ship was steered into the river, and there careened and thoroughly repaired. Cook having completed the survey of the east coast, to which he gave the name of New South Wales, sighted and named Cape York, the northernmost point of Australia, and took final possession of his discoveries from latitude 38° south northward to latitude 10½° south, on a spot which he named Possession Island, thence returning to England by way of Torres Straits and the Indian Ocean.

The favourable reports brought to England by the Endeavour on her return, and the graphic account of his voyage published by Cook, together with the fact that Great Britain had just lost her North American colonies by their successful rebellion, turned all eyes to Australia, or New Holland, as it continued to be called. The difficulty of disposing of their criminal population was only one of the causes which determined the Government of the day to found the colony of New South Wales; for it will become evident, as this narrative proceeds, that all concerned felt they were engaged in founding a new home in the Southern Hemisphere for the British people, and that visions of even greater progress than has yet been attained filled the minds, not only of Viscount Sydney and Governor Phillip, but also of many reflecting persons in the colony itself after it had been established. The truth of this view is amply demonstrated by the testimony of several contemporary writers.

It was in the early part of 1787 that Viscount Sydney, Secretary of State for the Colonies, determined to plant a colony in New South Wales, and by May of that year the First Fleet had been assembled. It consisted of the 20-gun frigate Sirius, the armed tender Supply, three storeships—the Golden Grove, Fishburn, and Borradale; and six transports—the Alexander, Scarborough, Lady Penrhyn, Prince of Wales, Friendship, and Charlotte. The largest of these vessels measured only 450 tons, and the smallest was no more than 270 tons. On board of the six transports were packed, according to the statement made by Collins in his history, no fewer than 564 men and 192 women, all prisoners who had been sentenced to expatriation. There were also carried 168 marines and 10 officers, commissioned and non-commissioned. These, with 5 medical men, a few mechanics, and 40 women—wives of marines—together with 13 children—the offspring of the convicts—

made up the total number of persons despatched to found the colony. Captain Phillip, R.N., was placed in command of the expedition, and given a commission as Governor and Captain-General of New South Wales. Second in command was Captain John Hunter, of the Sirius, and Mr. David Collins accompanied the expedition as Judge-Advocate.

The fleet sailed in May, 1787, and after calling at Rio Janeiro, arrived in Botany Bay in the beginning of January, 1788. A cursory examination convinced Captain Phillip that a more unsuitable site for a new settlement could hardly have been chosen than the shores of this inlet. Despite the profusion of new plants which had so delighted Banks and Solander, the neighbourhood of Botany Bay is by no means fertile. The scarcity of good water was a further disadvantage, while the bay itself was so shallow as to forbid the ships approaching the shore, to do which would have necessitated the erection of piers and jetties of great length. It was, besides, exposed to the full swell of the Pacific, without bays, creeks, or coves to afford shelter. The Governor accordingly determined to explore the coast in search of a more suitable site for the settlement. After proceeding with three of the boats about nine miles, he found himself abreast of the entrance to Port Jackson, which Cook had only seen from a distance, and had marked on his chart as a harbour for boats. Undeterred by this, Phillip rounded the South Head, and soon saw opening before him the whole expanse of one of the finest harbours in the world. For miles to the west stretched the peaceful waters of Port Jackson, which must have delighted the minds of the explorers, disheartened as they had been by the appearance and surroundings of Botany Bay. In place of the stunted scrub which formed the greater part of the vegetation of that locality, Port Jackson was found to be surrounded by a thick forest of noble trees, which extended to the water's edge, and promised an abundant supply of timber for building purposes. In place of the open roadstead at Botany, a countless succession of bays and inlets opened on the astonished gaze of the hardy navigators as they proceeded up the harbour. Deep water was found to extend to the very base of the rocks, thus obviating any necessity for expensive wharves, the construction of which must have occupied the little community for many months, to the neglect of more immediately pressing wants.

The Governor's choice of the site of the present metropolis of Australasia was determined by the fact that, about six miles from the entrance, an apparently perennial stream of the purest water was found discharging itself into a beautiful sandy inlet, which was named Sydney Cove, in honour of the statesman under whose auspices the enterprise had been undertaken. Before finally deciding on this site, Captain Phillip spent three days in exploring the various bays, but was confirmed in his original choice by the fact that no such stream of water had been found elsewhere, though in other respects numerous positions equally suitable presented themselves.

Returning immediately to Botany, preparations were made for bringing the colony round to Sydney Cove, when, as the fleet was standing out of the bay, an interesting incident occurred—two strange vessels, evidently making for the entrance, were discerned in the offing. Captain Phillip went out in the Supply to meet them, and they proved to be a French exploring party under the command of Jean Françóis Galaup, Comte de la Pérouse, their vessels being the frigates Astrolabe and Boussole. After an interchange of courtesies, the French were left to refresh and refit in Botany Bay. They stayed there till March, 1788, and buried one of their company on shore—Father Le Receveur, of the Order of St. Francis, the naturalist of the expedition, who died of wounds received in an encounter with the natives of the South Seas. His tomb is still extant at La Pérouse, near the north head of Botany Bay, where also a monument was placed, in the year 1825, to the memory of the commander of the expedition, who was shipwrecked and whose crew were murdered at Vanikoro, one of the Santa Cruz Islands. The monument was erected by Messrs. De Bougainville and Ducampier, commanding the French war vessels Thétis and Espérance, then lying in Port Jackson.

On Captain Phillip's arrival in Sydney Harbour, on the memorable 26th January, 1788, the ships anchored in the Cove, and preparations were at once made for landing the colonists. The clearing of the ground in the vicinity, and along the banks of the little stream, was commenced, and when a sufficient space had thus been obtained a flagstaff was erected, and the Union Jack run up. After the firing of three volleys by the marines, the Governor read his commission, and addressed words of counsel, warning, and encouragement to the prisoners, the ceremony closing with general festivity. Arduous labour succeeded this scene, for it was well understood that unless the settlers could raise supplies for themselves, the existence of the colony would be precarious, as the store of provisions in their possession was calculated to last only a very short time.

Accordingly, ground was cleared at the head of Farm Cove, adjoining the settlement, and an attempt was made to raise wheat, but time has shown that the soil in the immediate neighbourhood of Sydney is not suited to the cultivation of this cereal, and even if a good crop had been obtained the colonists must have starved while it was maturing. No food worth mentioning was procured from the land, and the little community was on the brink of starvation, when a ship arrived with another batch of colonists, but without stores. This brought matters to a climax, whereupon Governor Phillip sent the Sirius to the Cape Colony, and the Supply to Batavia, to procure provisions, which, however, could only be obtained in insufficient quantity, so that in a few weeks after the return of these vessels the state of affairs became as bad as before, and starvation again stared the colony in the face. Under these circumstances, everyone, including the Governor himself, was placed on short allowance, and even the sheep and cattle which had been reserved for breeding purposes were killed for food. In this aspect of affairs the Governor bethoug himself of Norfolk Island, whither, shortly after his arrival, he had se Lieutenant Philip Gidley King, of the Sirius, to establish a bran colony. A detachment of 200 convicts, with a guard of 70 marin was, therefore, despatched to the island. On arrival, it was found th King and his men had cleared a considerable portion of land, and h succeeded in raising an abundant crop. But the Sirius, in which t new detachment sailed, was wrecked on a reef off the island, so that supplies were procured thence at that time.

When the prospects of the settlement at Sydney Cove had reach their gloomiest, three store-ships arrived, and snatched the colony fr the very brink of destruction by famine. This tided over the difficult and so great a privation of food was never again experienced. Fre difficulties, however, beset the settlers by the arrival of some ship-loa of prisoners, most of whom were in a sick and dying condition. 1,700 men and women who had been embarked, 200 died on the voya and several hundred more were found to be *in extremis* on arrival. the midst of these horrors, the Governor's responsibilities were furth increased by the attempts of some of the prisoners to escape from t colony. Some took to the bush; others stole boats and put to s intending to reach the Dutch settlements in the Indian Ocean. Dari as this latter attempt may appear, it was in once instance successful : t men and a woman, in an open boat, succeeded in reaching Timor, wh they were imprisoned and sent back to Sydney on the first opportuni Numerous efforts were made to escape from the settlement by la the ignorance of the convicts being such that many imagined they co walk overland to China, and not a few perished in the bush wh making the attempt.

Governor Phillip's health gave way under the cares and anxieties of office, and in 1792 he returned to England, where he received a pensi in reward for his exertions in founding the colony, and died at advanced age. Major Grose and Captain Paterson, officers in charge the military, administered the government till the arrival of his success In 1795, Captain Hunter, who after the loss of the Sirius had gone England, arrived as the second Governor. With the arrival of Gover Hunter affairs took a new turn. He brought out a number of f settlers, mostly farming men ; and some fine alluvial land having be discovered on the banks of the Hawkesbury, farming was successfu begun, and in a short time more than 6,000 acres were under crops wheat and maize. The attempts to introduce cattle were for a ti unsuccessful, but in 1796 a herd of 60 head was discovered at t "Cowpastures," near Camden. These were the descendants of so cattle which had strayed from the settlement several years befo Though their quality was found to have deteriorated, they proved a v welcome addition to the live stock of the settlement. In 1800, wh Captain Hunter left the colony, the population was over 6,000 ; attem had been made to penetrate into the interior, but without success ;

Hunter River and its coal-mines had been discovered, and the mines were being worked by a detachment of prisoners; the city of Newcastle had been founded; and the New South Wales Corps, a military body enlisted for service in the colony (the first detachments of which had arrived in 1790), formed an efficient garrison and guard over the more refractory prisoners. During Governor Hunter's term of office, Bass and Flinders minutely examined the coast to the south of Sydney, in a small boat only 9 feet over all; and the former discovered the strait which bears his name, thus proving Tasmania to be an island, and not the southern extremity of the continent, as previously supposed.

The next Governor was Philip Gidley King, previously mentioned as the Lieutenant of the Sirius who had been despatched by Phillip to found a settlement on Norfolk Island. Though all fears of famine had now disappeared, Governor King soon found himself involved in difficulties of a scarcely less distressing nature. To explain these it will be necessary to describe the constitution of the New South Wales Corps. This body had been specially raised for service in the colony, the officers of the King's regiments not unnaturally objecting to be sent to such a far distant settlement, where they knew that they would find no intellectual occupation, and where their sole work would consist in acting as a prison guard, or, at most, in making a few raids, in alleged reprisals for the misdeeds of the ill-used, and often sorely provoked, aborigines. As a military guard of some sort was necessary, this corps was raised, and a few enterprising spirits—many of whom had never served before—were induced to accept commissions, with the view of obtaining grants of land and making their fortunes in the colony. Unfortunately, the readiest means to this end was found in the import trade, and as rum was in great request, the officers of the New South Wales Corps became importers of that spirit in large quantities—and even set up private stills in defiance of a Government order. Governor King was specially commissioned to put a stop to the traffic, a full account of which will be found in another part of this volume. King proceeded to act with great promptitude, and his vigorous proceedings in sending away thousands of gallons of spirits and wine created a storm of indignation among the importers, and greatly embittered the officers of the New South Wales Corps against the Government.

During King's time, a serious mutiny occurred among the prisoners. The more tractable of these were "assigned" as servants to the settlers, and engaged in working the farms and squattages; but the more reckless characters, made desperate in many instances by the treatment they received, were worked on the roads, in chain-gangs. A party of over 300 of these chain-gang men was employed at Castlehill, on the road between Parramatta and Windsor. These men, taking advantage of the small number of their guard, abandoned their work, managed to remove their irons, seized some firearms, and marched towards the Hawkesbury, expecting to be reinforced by the men employed in the neighbourhood.

But Major Johnston, second in command of the New South Wa Corps, pursued them with only twenty men, and on coming up wi them, charged with such precipitation that the mutineers were fa to lay down their arms and beg for mercy. Three or four of t ringleaders were afterwards hanged, but the rest were permitted return to their duty on undertaking to be of good conduct for t future.

An event of the utmost importance to the colony also took place und the administration of Governor King. This was the initiation of wo growing. John Macarthur, who had held a commission as captain in t New South Wales Corps, procured, with great trouble and by much per verance, some Spanish merinos, and having obtained a grant of 10,0 acres of land across the Cowpasture River, which estate he nam "Camden," commenced the growth of wool on a large scale. In a sh time his enterprise showed every sign of a successful issue, to the gr benefit of the colony generally, and to his own personal advantage. spite of these evident signs of material progress, however, Govern King was so worn out with the conflicts caused by his endeavo to suppress the rum traffic, and was in such constant collision wi the officers of the New South Wales Corps on that account, that seized the first opportunity of leaving the colony, and was succeed in the Government, in 1806, by William Bligh, a post-captain in t Navy.

Governor Bligh was a distinguished naval officer. His wonder voyage after the Mutiny of the Bounty had caused the Imperial Gove ment to entertain a high opinion of his conduct, as well as of his coura and determination. His services were numerous, and he had been pu licly thanked by Lord Nelson, after the bombardment of Copenhag for the gallantry and skill which he displayed on that occasion. Hen he was selected as a fit man to crush the clique of officers engaged in t rum traffic, and to purify official life in the colony. King had been on partially successful in this direction, and the British Government ga the strictest injunctions to Captain Bligh to stop the trade in spiri Accordingly, in February, 1807, he issued the following general order: "His Excellency the Governor laments to find by his late visit throu the colony that the most calamitous evils have been produced by p sons bartering, or paying, spirits for grain of all kinds, and the nec saries of life in general, and to labourers for their hire; such proceedin depressing the industrious and depriving the settlers of their comfor In order, therefore, to remedy these grievous complaints, and to relie the inhabitants, who have suffered by the traffic, he feels it his duty put a total stop to this barter in future, and to prohibit the exchange spirits or other liquors as payment for grain, animal food, weari apparel, or any other commodity whatsoever, to all descriptions of p sons in the colony and its dependencies."

This order is in itself sufficient to indicate to what fearful lengt the "rum currency" had been carried. Naturally it would have be expected that all respectable people, the military and ex-military especially, would have joined the Governor heart and soul in his efforts to put a stop to the traffic, and induce a more healthy state of things. Such, however, was not the case; and the struggle in respect to the illicit trade continued throughout the whole period of Bligh's governorship.

Other matters embittered the relations between the Governor and the colonists, and in these Bligh was not so obviously in the right as in his attempt to put down the contraband traffic in spirits. The contest reached its climax on the arrest of John Macarthur, whose efforts to promote the growth of wool have been alluded to. That gentleman had become specially obnoxious to the Governor; and, as he was also the chief trader in the community, he was selected as a scapegoat for the sins of the rest. Matters were brought to a crisis in the following manner, though the immediate circumstances of his prosecution had no direct connection with the barter of spirits. Mr. Macarthur had been part owner of a vessel that traded to Tahiti for salt pork and other articles for the supply of the colony. While this vessel was lying in Port Jackson, he received a summons from Mr. Atkins, the Judge-Advocate—that is, Chief Justice—to appear before him to answer to a complaint on the part of the crew of his vessel, of withholding from them their wages, in consequence of which they alleged that they had been compelled to break through the port regulations by coming ashore without special order. Macarthur returned an answer in writing, explanatory of his conduct in the matter, but did not obey the summons by appearing in person. This was construed to be an act of contumacy, which some attributed to a feeling of personal resentment towards the Governor, engendered by the action of the latter against the "rum currency."

A warrant was accordingly issued for Macarthur's apprehension, and on the 25th January, 1808, he was brought before the Judge-Advocate and a military jury of six, consisting of officers of the New South Wales Corps—such being at the time the composition of the Supreme Court of the colony. Mr. Macarthur objected to the Judge-Advocate sitting on his trial, on the ground that he bore him personal ill-feeling, for which assertion it would appear that there was some foundation, especially as Atkins' adviser throughout the whole proceedings was one George Crossley, a transported attorney, who is believed to have been an enemy of Macarthur. Although the defendant's objection was sustained by the six military officers, the Judge-Advocate refused to abdicate his position, and the Governor declined to supersede him—for which, indeed, he had no authority, Atkins having been appointed by the British Government.

At this juncture, the Governor summoned the six officers to his presence to explain their conduct in supporting Macarthur's protest and refusing to sit with the Judge-Advocate, but they declined to obey. The Governor also sent several times during the next day to Major

Johnston, the Commandant, at his residence at Annandale, asking him to confer with him as to the conduct of his subordinates. That officer, however, declined to come to town, on the plea of ill-health. This was an evident subterfuge, for between 6 and 7 p.m. on the same day (the Anniversary of the foundation of the colony) he suddenly made his appearance in the Barrack Square, where, if we may believe his statement, he found everything in a state of ferment and confusion, and himself beset with the clamours of a number of the leading inhabitants, civil as well as military, calling upon him to put the Governor under arrest. He accordingly marched at the head of his regiment, with drums beating and colours flying, to Government House, and Bligh was put in close confinement in his own residence. Johnston thereupon assumed the government, his first act being to suspend the Judge-Advocate, the Commissary, the Provost-Marshal, the Chaplain, and other principal officials, and to appoint others to act in their place.

Major Johnston continued to administer the government till his Lieutenant-Colonel (Foveaux) superseded him, as the senior officer in the colony, and eventually Colonel Paterson came from Tasmania and assumed the direction of affairs. Both these officers approved Johnston's proceedings, but the latter set Bligh at liberty, after a detention of twelve months, on condition of his proceeding straight to England in a vessel which was then ready to sail. Bligh promised to do so, but on his way called at Tasmania, where the military authorities attempted to detain him; he was, however, successful in escaping their hands.

News of the affair had meanwhile reached England, and the Government, being very much concerned at the proceedings of the military, despatched Lieutenant-General Macquarie to the colony as Governor. His instructions were to reinstate Governor Bligh for twenty-four hours, to assume the government himself, and to send Johnston home under close arrest. Bligh could not be reinstated, as he had left Sydney; so Macquarie's first act was to arrest Major Johnston, who was subsequently tried by court-martial in England and sentenced to be cashiered, the leniency of the sentence being such as to call forth special remark from the Prince Regent, in a minute appended to the proceedings, distinctly stating that it was not to be drawn into a precedent. Johnston afterwards returned to the colony, and died at his estate at Annandale.

With the arrival of Governor Macquarie, the colony entered on a stage of decided progress. The final abolition of the traffic in rum was followed by a marked improvement in the morals of the population. Schools were established, and the children, who had hitherto grown up in total ignorance, were taught to read and write, and instructed in useful handicrafts. An impetus was given to exploration, and the dwellings of the settlers in the bush were much improved by the efforts of the Governor during the annual tours which he made through the colony. Churches and public buildings were erected, asylums founded, and a better tone was given to society generally by the exertions of this philanthropic Governor, ably seconded by the endeavours of his high-minded wife, who laboured to improve the condition of her sex and the children in the colony. Among the many beneficial works undertaken by Macquarie, by far the most important was the road over the Mountains, *via* Lapstone Hill and Mount Victoria, to Bathurst. After many attempts to penetrate the Coast Range, it had been at last successfully crossed, in 1813, by Blaxland, Wentworth, and Lawson, names memorable in the annals of the colony. An account of the expedition will be found in another place.

Another distinguishing feature of Governor Macquarie's policy, which was almost as beneficial as his efforts to instruct the population in religion and morality, and to open up the country, was the favour with which he treated the "emancipists"—that is, those convicts who had become free by serving out their sentences. When it is remembered that the majority of those transported had been guilty of petty offences only, or of acts which in the present day would scarcely be deemed offences at all, the Governor's determination to give every encouragement in the way of official recognition to emancipists must be strongly commended. To transport a person for a petty offence, to ostracise him for the rest of his life, and to extend the social ignominy to his children, was in the highest degree unjust; and Governor Macquarie, as a humane man, set his face against the custom. In religious matters he showed a largeness of mind in advance of public opinion, by removing, as far as lay in his power, the religious disabilities under which a large section of the colonists laboured. In 1821, after a longer term of office than has been allotted to any Governor either before or since, "L. Macquarie, Esq.," as he modestly styles himself in the inscriptions on the public buildings he erected—discarding the prestige attaching to his military rank—left the colony, to the regret of the entire population, and was succeeded by Sir Thomas Brisbane.

The new Governor trod in the steps of his predecessor. He carried on the work of exploration, and in 1823 despatched Mr. Oxley, Surveyor-General, to survey Moreton Bay, Port Curtis, and other parts of the north-eastern coast-line. Following up the information furnished by a castaway named Pamphlett, Oxley discovered a river debouching into Moreton Bay, which he named after the Governor; and a town was founded on its banks, also named Brisbane, which has become the capital of the colony of Queensland. The Murray and Murrumbidgee Rivers were discovered soon afterwards by Hovell and Hume, who had formed an exploring party under the auspices of the Governor. The immigration of free settlers was much encouraged by Sir Thomas Brisbane, the result being the arrival of numbers of young men, many possessing capital, who became squatters, and soon wrought an important change in the colony, by causing the costly Government farms to be broken up. As a consequence, the wants of the community were more cheaply and better supplied by private enterprise. Censorship of the press, which had been strictly enforced up to this time, was abolished by Governor Brisbane, by proclamation dated 15th October, 1824. Trial by jury was introduced about the same period, by which the privilege of being tried by his peers was extended to every man, the assessors to the judge before that time having been chosen exclusively from officers in the Army. Sir Francis Forbes, the first Chief Justice, was mainly instrumental in introducing this great and salutary change in the administration of the law. The first normally constituted jury sat at the November Quarter Sessions of 1824. An Act had also been passed by the Imperial Parliament, in 1823, which conferred another most important privilege on the colony. It was provided that the Governor should nominate a Legislative Council of seven members, by whose advice he was to be guided. Previous to the appointment of this Council, the Governor had been virtually absolute in power, the only check upon him being the public opinion of the colonists, and the authority of the British Government as represented by the Secretary of State for the Colonies. This Council of Seven was really the nucleus around which have gathered our present Constitution and the liberties we now possess. It was the first step—in which, says the proverb, all the difficulty consists; and yet it was only after much agitation that even this initial effort was allowed to be made.

The next Governor was Major-General Ralph Darling, who, finding the colony in the state of progress above described, by a series of blunders nearly succeeded in destroying the beneficial result of the efforts of his predecessors. Arriving in Sydney in 1825, he soon became involved in very serious disputes with the colonists and the press. In order to meet the criticisms of the latter, a number of Acts were passed by the Council, which had the effect of stifling obnoxious comments for the time. One good result which sprang indirectly from these arbitrary Acts was the enlargement, in 1828, of the Legislative Council from seven to fifteen members. The Bushranging Act was passed by this Council to put down a prevalent nuisance—the gangs of escaped prisoners who infested the principal roads and robbed all-comers without distinction.

The work of exploration made some progress in Governor Darling's time, the famous journeys of Captain Charles Sturt having been undertaken with his sanction. Other explorers were Allan Cunningham, Hume, and George Macleay, son of Alexander Macleay, the Colonial Secretary of that day.

It was strongly suspected at this time that the French had an idea of forming settlements in Australia. French ships constantly appeared off the coast, ostensibly fitted out for the purpose of making geographical discoveries, but really, it was believed, to found a colony in any Australian territory which they might find unoccupied. To frustrate this suspected design, Darling despatched two expeditions, in 1826, to King George's Sound and to Western Port, in which neighbourhoods it was surmised the French were hovering. To show that there was some ground for these fears, chimerical as they may now appear, it will be sufficient to quote the Governor's instructions to the officers in charge of the expeditions. He says :—"Should you find the French already in occupation, you will, notwithstanding, land the troops, and signify to the Frenchmen that their continuance with any view of establishing themselves, or colonization, will be considered an unjustifiable intrusion on his Britannic Majesty's possessions." No Frenchmen, however, were found at either of the places named, and settlements were therefore promptly formed at Western Port, and at King George's Sound and Swan River, in Western Australia. When Governor Darling left the colony in 1831, much progress had been achieved, in spite of the newspaper war and his personal unpopularity; the population had reached over 51,000 for the whole of New South Wales, and the value of the total exports was £500,000.

The unpopularity of Governor Darling gave a factitious advantage to his successor, Sir Richard Bourke, even before his sterling qualities had become known. Sir Richard Bourke may be said to have been the real founder of our present free institutions, as under his rule the foundations of the Constitution we now enjoy were well and firmly laid, on the solid basis of full and equal rights to all, whatever their sect or belief and whether emancipist or originally free. Immigrants began to arrive in large numbers, under a policy of assisted immigration, which was then initiated. The first vote in aid of immigration was made by the Legislative Council at Bourke's suggestion, and the British Government doubled the amount given by the colony. Under that system the first batches of immigrants to arrive were fifty young women from an orphan school in Cork, and fifty-nine mechanics from Scotland, whom the Rev. Dr. Lang introduced for the purpose of building the Australian College.

But the great achievement of Sir Richard Bourke's administration was the establishment of religious equality, and the breaking up of the monopoly of Government aid enjoyed by one communion. For his services in the cause of liberty, in this and other instances, a movement was set on foot after his departure—which took place in 1837, twelve months after the passing of the Church Act—to erect a statue of him in Sydney. Mr. Westmacott was commissioned to design a figure of Sir Richard in bronze, which, together with a granite pedestal, arrived in Sydney in 1842. It was erected where it now stands, at the Macquarie-street entrance to the Domain, opposite to the Public Library, and was unveiled on the 11th April, 1842. A general holiday was proclaimed on the occasion, and the assemblage was the most numerous which had up to that time gathered, for any purpose, in the metropolis. The succeeding Governor, Sir George Gipps, delivered a speech, laudatory of his predecessor, in whose steps he said he was resolved to tread. This was the first statue ever set up in Australia. It was no more than a fitting tribute to the virtues of the Governor, and serves even now as a reminder of the new order of things which he introduced.

The famous expeditions of Sir Thomas Mitchell, who had succeeded Oxley as Surveyor-General, were undertaken during Bourke's tenure of office. The first was to the north, as far as Liverpool Plains; in the second, the country between the Bogan and the Macquarie was surveyed; and in the third, the course of the Darling was traced, from its source to its junction with the Murray. In the fourth, Mitchell discovered the rich lands of Victoria, which so enraptured him that he named the country Australia Felix.

The administration of Sir George Gipps was marked by the abolition of transportation. The system of assigning convicts as servants to the settlers had ceased in 1838, and transportation itself was abolished by an Order in Council in 1840, though an attempt was made to revive it nine years later. For many years previous to its abolition, the system of transportation was viewed with great disfavour by the colonists, and a powerful league was formed as early as 1830 to bring about its cessation. During the fifty-three years when New South Wales was open to receive British prisoners, the number of convicts who landed in Sydney was about 82,250, of whom 70,040 were males and 12,210 females. At the census of March, 1841, there were in the colony 19,397 persons, 15,760 males and 3,637 females, originally bond, but free by servitude or emancipation; and 26,977 persons, 23,844 males and 3,133 females, whose period of servitude had not expired. It would therefore appear that out of the total number of convicts sent to the colony, 46,374 remained at the abolition of the system of transportation, while 35,876 had either been removed by death or had left the settlement.

The great event of Governor Gipps' time was undoubtedly the introduction of a new Constitution, by the establishment of a Legislative Council composed of thirty-six members, twelve nominated by the Crown, and the remainder elected by those who were placed on the electoral roll, a small property qualification being required. The new Council met on the 1st August, 1843.

A great commercial crisis followed soon after the introduction of the new Constitution, and was the cause of serious and far-spread distress. An account of the causes which led up to this period of acute depression, and of the remedial measures, such as the Insolvency Act and the Lottery Bill, adopted to enable the colony to weather the storm, will be found in the chapter dealing with "Industrial History."

The first agitation for the formation of the Port Phillip District into a separate colony took place in 1844, towards the close of Governor Gipps' administration, and the claims of the trans-Murray residents to govern themselves were ably advocated by Dr. Lang, one of the six members returned by the district since known as the colony of Victoria. The entire population of what is now New South Wales, Victoria, and Queensland did not, at that period, exceed 150,000, of which the

Port Phillip District contributed only 30,000. Their distance from the seat of Government nevertheless justified the demand of the Victorians for separation, which was conceded, to their great permanent benefit, in 1851, seven years after the first agitation, and when the population of Victoria numbered 77,345. On the 1st December 1859, New South Wales was again dismembered, losing its northern province, which was constituted a separate colony under the name of Queensland.

Sir George Gipps was succeeded as Governor by Sir Charles Augustus Fitzroy, during whose tenure of office occurred several of the most important events in the history of Australia. These, in the order of their happening, were the final abolition of transportation in 1849; the separation of Victoria in 1851; the discovery of gold in the same year; and the establishment of Responsible Government in 1855–6. The abolition of transportation was not accomplished without a severe struggle with the pro-assignment party, the details of which will be found in their proper place, under the head of "Industrial History."

The discovery of gold, in 1851, was by far the most important incident which had yet occurred in the annals of the country. An account of that remarkable event, together with its industrial and commercial results, will be found in its proper place, but a few remarks are here called for as to the historical bearing of the great discovery. For many years prior to 1851 it was known that small quantities of gold had been found in the Bathurst district; and a colonist offered, during the administration of Sir George Gipps, to conduct the Government surveyors to a spot where he said gold existed in payable quantities, but the project was discouraged. After a few years, however, when wages were low and work was scarce, the tale of a discovery of gold was suddenly on every tongue.

In the early part of 1851 nuggets began to arrive in Sydney. They had been found in the vicinity of Bathurst, and their inspection by the public raised a wave of excitement, which affected all classes. It is not surprising that the possibility of amassing a fortune in a few months—which seemed indisputable from the presence of so many specimens of gold—should have induced hundreds of people of all ranks to abandon their employments, and set out for Bathurst. Nor could news of such a nature be confined within the colony, and before many months had elapsed the presence of gold in Australia was known all over the world. Then, from every quarter of the globe, followed a mighty rush of the most enterprising spirits and those physically the most capable of enduring the unknown hardships before them—a circumstance on which Australians in the future will have occasion to congratulate themselves; for the splendid physique of the early colonists, already manifested in their sons and daughters, must undoubtedly become the inheritance of succeeding generations.

The effect produced on society by this most fortunate discovery
unpleasant enough at first. Stations throughout the colony were
without hands, and all ordinary occupations were threatened with
tinction, in consequence of the general exodus to the gold-fields.
squatters even petitioned the Government asking that martial law mi
be proclaimed, and all gold-digging peremptorily prohibited, in or
that the regular industrial pursuits of the country should not be in
fered with. The Governor, however, refused to accede to this manife
absurd request. So great a change in the circumstances of the coun
as that wrought within so short a time by the gold discovery, could
fail to affect many persons prejudicially. But after a few years, aff
resumed their normal course, and gold-mining found its level as on
the ordinary industries of the country. The great and permanent ben
which resulted from the influx of an enterprising population, the incre
of wealth, and the consequent development of many other industr
cannot be overrated. Nothing since the introduction of wool-growing
tended so much to develop its resources, and to make so widely known
great advantages which Australia offers to the overcrowded populati
of the Old World, as the discovery of gold in 1851. Since that era
country's progress has been by leaps and bounds, and Australia, wh
was before regarded merely as a far-off dependency of Great Brit
now takes a place amongst the nations of the world, and is in a fair
of realising the prophetic visions of future greatness which inspired
founders.

For several years before the discovery of gold there had been grow
up among the colonists a strong desire for a larger measure of s
government. The position of the colony as a Crown dependency wa
galling one, especially when the population became so largely increa
through the outbreak of the gold fever. It was felt that the
system, which might have sufficed for the government of the pe
when their numbers were few, was quite unsuitable for so larg
community as New South Wales had become. Hence the agitat
that had already been commenced in favour of a free Constitution
continued with ever-increasing force.

In 1851, an Act was passed by the Imperial Parliament (13 and
Vic., No. 59), in accordance with which the dependency of Victoria
erected into a separate colony, and provision was made to confe
Constitution upon New South Wales. Accordingly, in 1852, a Se
Committee of the Legislative Council was appointed to prepar
Constitution for the colony, in pursuance of the powers confer
by the Act above cited. The first result of the labours of
Committee was the despatch of a remonstrance to the Secretary
State for the Colonies, directed not so much against the
form of government, as against the amendment of the Constitu
which it was proposed to introduce. Subsequently, after much
respondence, and the receipt of a despatch from the Secretary
the Colonies, Sir John Pakington, practically conceding all

the colonists demanded, a Committee of the Legislative Council was appointed to draft the new Constitution. This Committee consisted of the following gentlemen:—Messrs. Wentworth, Deas-Thomson, James Macarthur, Cowper, Martin, Macleay, Thurlow, Murray, and Dr. Douglas.

The Committee, in their report, stated that they desired to have a form of government in perfect accordance with the British Constitution, and that a conservative element ought to be constantly present in the Constitution; and for this reason they declared they did not feel inclined to hazard the experiment of an Upper House based on the general elective franchise. To provide for this Upper House the Committee gravely made the following recommendations. They proposed that an hereditary nobility should be created, leaving the Crown to decide whether or not to give the first holder of a title a seat for life, and that the aristocracy to be thus established should, in the future, elect a certain number of their order to form the higher branch of the Legislature. The question of federation was also noticed in the report:—"One of the most prominent legislative measures required by the colony, and the colonies of the Australian group generally, is the establishment at once of a General Assembly, to make laws in relation to those intercolonial questions that have arisen, or may hereafter arise, among them. The questions which would claim the exercise of such a jurisdiction appear to be (1) intercolonial tariffs and the coasting trade; (2) railways, roads, canals, and other such works running through any two of the colonies; (3) beacons and lighthouses on the coast; (4) intercolonial gold regulations; (5) postage between the said colonies; (6) a general court of appeal from the courts of such colonies; (7) a power to legislate on all other subjects which may be submitted to them by addresses from the Legislative Councils and Assemblies of the colonies, and to appropriate to any of the above-mentioned objects the necessary sums of money, to be raised by a percentage on the revenues of all the colonies interested."

This report, when it was made public, caused a good deal of commotion in the metropolis, and at a public meeting, held at the "Royal Hotel," the following energetic protest against part of the scheme was adopted:—"That this meeting views with surprise and strong feelings of opposition the scheme proposed for the political constitution of the colony, especially in respect to the establishment of an Upper House of Crown nominees, and a certain unprecedented order of colonial nobility"; and a further resolution decided that "a larger meeting should be held, in order to record a protest against a measure so repugnant to the feelings of British subjects, and fraught with so much danger to the political rights of the people." A more numerous meeting was accordingly held, the principal speakers at which were Mr. (afterwards Sir Henry) Parkes, Messrs. Robert Johnson, Montefiore, Deniehy, Mort, Piddington, Flood, and Archdeacon McEncroe.

In spite of these meetings, the Council proceeded to debate the Repo
as it stood. After a great deal of opposition to the retention of t
"aristocratic" clause, and after the holding of more public meetin
the "Constitution Act," the basis of the rights we now enjoy, was final
passed on the 21st December, 1853. This Act established two Legis
tive Chambers. The first was to consist of not less than twenty-o
natural-born or naturalised subjects (four-fifths of whom were to
persons not holding any office of profit under the Crown) who were
be nominated by the Governor in the name of the Queen. The fi
members were to hold their seats for five years, at the expiration
which period all appointments were to be made for life. The Preside
was to be appointed by the Crown. The Legislative Assembly was
consist of fifty-four members, the qualification for the franchise bei
fixed as follows :—All inhabitants of full age, being native-born
naturalised subjects of the British Crown, and not having been co
victed of any crime—or, if convicted, pardoned—and having paid
rates and taxes for which they were liable, were placed in the conditi
precedent required for either voting or being elected to the Assembl
but they were required, in addition, to be qualified in the followi
respects :—As the owner of a freehold estate of £100 ; as a household
lodging occupier, or leaseholder for three years at £10 per annum.
these were added boarders at £40 per annum, persons receiving £1
a year salary, and pasture-license holders for one year. Ministers
religion were declared incapable of being elected to the Legislatu
Subsequent alterations to the Constitution Act removed that restrictio
and made universal manhood suffrage the basis of the electoral syste
of the colony, with the application of the principle popularly known
"one man, one vote." A full account of the parliamentary system w
be found under the chapter of this work treating of "Constitution a
Government."

Before the Constitution could become operative, it was necessary th
the sanction of the British Parliament should be obtained, and for th
purpose Wentworth (whose name has become identified with the establis
ment of Responsible Government) and E. Deas-Thomson were authoris
by the Council to proceed to England in order to do what lay in the
power to facilitate the passage of the necessary measure. According
about the middle of the year 1855, an Act was passed by the Imperi
Parliament, empowering the Queen to assent to the Bill drawn up
the Council, and on the 19th December the new Constitution w
formally inaugurated by Governor-General Sir William Deniso
who had just succeeded Fitzroy, being sworn in afresh under a Co
mission from the Queen, which revoked his former credentials a
appointed him "Governor-in-Chief" of New South Wales. The wr
for the first Parliament were issued on the 22nd May of the followi
year.

With the enumeration of the events that led up to the introducti
of responsible government this narrative fitly closes. All that has sin

en place has been treated, as far as possible, as belonging to statistics, will be found dealt with in various places in other chapters of this me.

SUCCESSION OF GOVERNORS.

e succession of Governors, from the foundation of the colony to the it time, is given in the following table :—

	From	To
A. Phillip, R.N.	26 Jan., 1788	10 Dec., 1792.
F. Grose, New South Wales Corps tenant-Governor)	11 Dec., 1792	12 Dec., 1794.
W. Paterson, N.S.W. Corps (Lieutenant- rnor)	13 Dec., 1794	1 Sept., 1795.
J. Hunter, R.N.	7 Sept., 1795	27 Sept., 1800.
P. G. King, R.N.	28 Sept., 1800	12 Aug., 1806.
W. Bligh, R.N.	13 Aug., 1806	26 Jan., 1808.
g Governor Bligh's suspension—		
ant-Colonel G. Johnston, N.S.W. Corps ant-Colonel J. Foveaux, N.S.W. Corps W. Paterson, N.S.W. Corps	26 Jan., 1808	28 Dec., 1809.
eneral L. Macquarie	1 Jan., 1810	1 Dec., 1821.
eneral Sir T. Brisbane, K.C.B.	1 Dec., 1821	1 Dec., 1825.
Stewart, 3rd Regiment (Acting Governor)	6 Dec., 1825	18 Dec., 1825.
ant-General Ralph Darling	19 Dec., 1825	21 Oct., 1831.
P. Lindsay, C.B., 39th Regiment, (Acting rnor)	22 Oct., 1831	2 Dec., 1831.
eneral Sir Richard Bourke, K.C.B.	3 Dec., 1831	5 Dec., 1837.
olonel K. Snodgrass, 52nd Regiment ng Governor)	6 Dec., 1837	23 Feb., 1838.
rge Gipps	24 Feb., 1838	11 July, 1846.
eneral Sir Maurice O'Connell, Com- er of the Forces (Lieutenant-Governor)	12 July, 1846	2 Aug., 1846.
rles A. Fitzroy, K.C.B., K.H.	2 Aug., 1846	17 Jan., 1855.
liam Thomas Denison, K.C.B.	20 Jan., 1855	22 Jan., 1861.
ant-Colonel John F. Kempt, 12th Regi- (Administrator)	23 Jan., 1861	21 Mar., 1861.
ght Honorable John Young, B., G.C.M.G. Administrator	22 Mar., 1861	15 May, 1861.
Governor-in-Chief	16 May, 1861	24 Dec., 1867.
eneral Sir Trevor Chute, K.C.B., Com- er of the Forces (Administrator)	25 Dec., 1867	7 Jan., 1868.
ght Honorable the Earl of Belmore, P.C.	8 Jan., 1868	22 Feb., 1872.
red Stephen, Knt., C.B. (Administrator)	23 Feb., 1872	2 June, 1872.
cules George Robert Robinson, G.C.M.G.	3 June, 1872	19 Mar., 1879.
ed Stephen, K.C.M.G., C.B. (Lieutenant- rnor)	20 Mar., 1879	3 Aug., 1879.
ight Honorable Sir Augustus William erick Spencer Loftus, P.C., G.C.B.	4 Aug., 1879	9 Nov., 1885.
red Stephen, G.C.M.G., C.B. (Lieutenant- rnor)	10 Nov., 1885	11 Dec., 1885.
ight Honorable Baron Carrington, P.C., M.G.	12 Dec., 1885	1 Nov., 1890.
red Stephen, G.C.M.G., C.B. (Lieutenant- rnor)	3 Nov., 1890	15 Jan., 1891.

	From	To
The Right Honorable the Earl of Jersey, P.C., G.C.M.G.	15 Jan., 1891	28 Feb., 18
Sir F. M. Darley, Kt., Chief Justice (Lieutenant-Governor)	2 Mar., 1893	29 May, 18
The Right Honorable Sir Robert William Duff, P.C., G.C.M.G.	29 May, 1893	15 Mar., 18 (died in offic
Sir F. M. Darley, Kt., Chief Justice (Lieutenant-Governor)	16 Mar., 1895	21 Nov., 18
The Right Honorable Viscount Hampden	21 Nov., 1895	(Still in offic

During Sir William Denison's term of office he made two visits Norfolk Island, the first extending from 17th September to 27 October, 1857; and the second, from 16th June to 8th July, 18 During his first visit the government was administered by Colo H. K. Bloomfield, Mr. J. H. Plunkett, and Mr. Charles Cowper; a during the second, by Colonel J. M. Perceval, Sir William W. Burt and Mr. Charles Cowper.

LIMITS AND AREA.

THE Colony of New South Wales lies almost entirely between the 29th and 36th parallels of south latitude, and between the 141st and 153rd meridians east of Greenwich. It is bounded on the east by the Pacific Ocean, to which it presents a coast-line extending over 700 miles, from Point Danger at its north-eastern extremity to Cape Howe at the south-east. From the point last mentioned, which is also the north-east limit of the colony of Victoria, it is bounded by an imaginary line, running in a north-westerly direction to the source of the Indi, a stream rising at the foot of Forest Hill, a few miles south of the Pilot Mountain, one of the most conspicuous peaks of the Australian Alps. The southern boundary of the colony follows the course of the Indi, and afterwards of the Murray, into which the first-named stream ultimately merges, as far as the 141st meridian of east longitude. The intersection of the Murray with this meridian forms a common point of the three colonies of New South Wales, Victoria, and South Australia.

On the west, the colony is separated from South Australia by the line of the 141st meridian, as far as its intersection with the 29th parallel of south latitude, at which point New South Wales, South Australia, and Queensland touch. Commencing at this point, the northern boundary of the colony follows the 29th degree of latitude, till it is crossed by the Macintyre River, one of the upper branches of the Darling, not far from the 149th meridian. Thence it follows the course of the Macintyre upward, to the junction of its tributary, the Dumaresq; leaving the Macintyre, it follows the tributary stream till it meets a spur extending from the Main Dividing Range to the junction of Tenterfield Creek and the Dumaresq. The boundary runs along this spur until it joins the main range, thence, almost parallel to the coast, it follows the Dividing Range to Wilson's Peak, where the Macpherson Range branches eastward. Following the last-named range, the northern boundary reaches the coast at Point Danger.

The area comprised within these limits is estimated at 310,700 square miles, or 198,848,000 acres, being a little over two-and-a-half times that of Great Britain and Ireland. Excluding the surface covered by rivers and lakes, the area would be 195,882,150 acres, or about 306,066 square miles.

The length of the colony, from Point Danger on the north to Cape Howe on the south, is 680 miles. From east to west, along the 29th parallel, the breadth is 760 miles, while diagonally from the south-west corner, where the Murray passes into South Australia, to Point Danger, the length reaches 850 miles.

PHYSICAL CONFIGURATION.

THE surface of New South Wales is divided naturally into three distinct zones, each widely differing in general character and physical aspect, and clearly defined by the Main Dividing Range, which traverses the country from north to south. The table-land, which forms the summit of this range, comprises one of the zones above mentioned, and marks the division between the coastal region, forming the eastern watershed, and the great plain district of the interior.

MOUNTAINS, TABLE-LAND, ETC.

The Main Dividing Range runs almost parallel to the coast, at no great distance from it. On the eastern edge of the table-land the mountains rise abruptly to a height which averages between 2,000 and 3,000 feet, while on the western side they slope gradually towards the great central plain. The geographical centre of the whole mountain system of south-eastern Australia lies in the south-eastern portion of New South Wales, close to the confines of Victoria. Here some of the peaks rise to a height of over 7,000 feet above the level of the sea. Mount Kosciusko and Mount Townsend, two of the highest peaks of the Australian Alps, attain an elevation of 7,328 feet and 7,260 feet respectively.

The central plateau, which these heights dominate, becomes subdivided into several branches, marking the watershed of three distinct river systems. The eastern watershed extends throughout the whole length of New South Wales and Queensland, and drains into the Pacific Ocean. The western watershed, embracing a portion of the three eastern colonies, is drained by the river system of the Murray and Darling into the Southern Ocean. In the southern watershed the Snowy River has its source, its upper basin being entirely in New South Wales, although its waters flow through Victoria and enter the sea near Bass' Strait.

In the south-eastern portion of the colony, which has the appearance of having been convulsed by some great physical disturbance, the width and altitude of the table-land are greatest. The mountains, however, are rugged and their slopes abrupt, as is also the case in other portions of the Dividing Range, particularly in the Blue Mountains and the eastern parts of New England. The average height of the Snowy and Muniong Ranges, which belong to the south-eastern district, reaches 5,000 feet; and the width of the plateau, in the direction of east and west, may be set down at 100 miles. The altitude of the Monaro district averages 2,000 feet above the sea-level; but as the table-land runs northward it decreases greatly in height and in width, until it narrows to a few miles only, with an elevation of scarcely 1,500 feet.

The table-land rises again at the Blue Mountains, where the principal summits attain a considerable elevation, Mount Beemarang reaching 4,100 feet. The general level of the plateau itself will be best understood when it is remembered that the Great Western Railway of the colony traverses a district in these mountains, of which the Clarence Siding, Mount Victoria, Mount Wilson, and Blackheath, are stations, situated at an elevation of over 3,000 feet. The dividing chain again decreases gradually in its spread northward of the Blue Mountains, until, as a comparatively narrow ridge, it divides the waters of the Goulburn and the Hunter, on the eastern slope, from those of the Namoi and the Castlereagh, on the western. The mass once more widens out in the Liverpool Ranges, where Mount Oxley stands conspicuous at a height of 4,500 feet, whilst still farther north Ben Lomond reaches 5,000 feet, and the table-land maintains an average altitude of 3,000 feet, giving to this district, although situated at no great distance from the tropics, the climate and aspect of much higher altitudes.

Narrow valleys and deep gorges everywhere break the continuity of the Dividing Range. Such is especially the case in the Blue Mountains, where the scenery is of striking and characteristic grandeur. The table-land everywhere presents one strange peculiarity. The level land suddenly terminates, and many hundred feet below, as far as the eye can reach, wooded valleys extend, whose undulating floors are walled in by sandstone cliffs, of height so enormous as to be without parallel elsewhere in the world. At the bottom of these valleys small rivulets and tiny streams, fed by waterfalls from the table-land, trace their way, under an ever-verdant dome of graceful tree-ferns and giant eucalypti.

The mountain scenery of this part of New South Wales produces on the traveller an entirely new impression. There are no snow-capped peaks upon which the rising and setting sun produces strange and magnificent colour effects, nor does any peculiar shape of the summits strike the imagination, as in the Alps and Pyrenees of the Old World. On the contrary, from the plains the New South Wales mountains look rather insignificant. But gazing from the edges of the high table-land into the deep valleys below, the mind is awed by the realisation of the magnificent scale on which Nature has worked in these solitudes. In many places the cliffs rise 2,000 feet perpendicularly from the valley beneath, and the hills at their feet, formed by the accumulation of debris from their sides and from the plateau above, appear as slight undulations. The valleys and sides of the gorges, wherever there is soil, are clothed with dense vegetation, and over all is the mantle of blue haze which makes the whole effect most striking, and which has given to the range visible from Sydney its appropriate name.

The main range throws off many spurs towards the sea on the eastern slope. These divide the waters of the numerous rivers which flow into the Pacific Ocean. Almost everywhere between the coast range and the sea the country is hilly and serrated, more particularly in the southern portion of the colony. In the Illawarra district, 50 miles to the south of Sydney, the mountains skirt the very edge of the coast, presenting towards the ocean a perpendicular face of cliffs nearly 1,000 feet in height. Farther north there is a wider coast-land, with greater stretches of country available for tillage and pasture.

The western slope is entirely different. Numerous ramifications of the general mountain system are thrown off, but all slope gently towards the great central plain of the interior. So gentle, indeed, is the declivity that the dividing lines of the various watersheds as they extend westward are scarcely visible, being only indicated by a succession of low ridges and isolated elevations.

In the extreme west of the colony, verging on South Australia, another mountain system exists, forming the western edge of an immense depression, through which the largest rivers of the Australian Continent hold their devious course. The Barrier and the Grey Ranges are part of this system. They consist of low hills, hardly rising to the dignity of mountains, and culminating in a few solitary peaks, such as Mount Arrowsmith and Mount Lyell, which attain an elevation of only 2,000 feet above sea-level.

Traces have been found of the existence at some earlier period of a range of primary rocks, extending from Orange to Cobar and Wilcannia, and forming the watershed between the Lachlan and part of the basin of the Darling. The range no longer exists as a landmark, for owing to denudation it has almost entirely disappeared.

The whole mountain system of New South Wales lies below the limit of perpetual snow. On the south-eastern slopes of the Snowy Ranges, however, and on the summits of the high peaks of the Australian Alps, snow sometimes lingers throughout the year.

LAKES OF THE MOUNTAIN REGION.

On the summit of the Main Dividing Range, and within a few miles of the inland towns of Goulburn, Queanbeyan, and Braidwood, two of the principal lakes of the colony are situated. Lake George is 16 miles in length and 6 miles in width, draining a basin whose area is about 490 square miles. It is situated at an elevation of 2,200 feet above the sea, and the scenery around it is very beautiful. This lake exhibits the phenomenon of a large drainage area without a visible outlet, for though it receives many small water-courses, no stream leaves it. Lake Bathurst, a few miles east of Lake George, is another depression on the summit of the Dividing Range, and covers in ordinary seasons an area of about 15 square miles. It is similar in character to Lake George, having no outlet to the sea. Both lakes, in periods of great drought, shrink considerably in area; but Lake George in most seasons is a fine sheet of water, and now that the railway to Cooma skirts its shores, the attractiveness of its scenery makes it a favourite resort of tourists.

THE COASTAL REGION—RIVERS.

The main range already described, traversing the country from north to south, gives rise to numerous rivers flowing into the South Pacific. Compared with the western rivers of the colony, those of the eastern slope appear insignificant enough; but contrasted with the principal rivers of western Europe, their relative size and importance are at once manifest.

In the extreme north of the colony, the Tweed and Brunswick Rivers flow through a rich country of semi-tropical aspect. Their courses are short, and bar-entrances render them navigable only for small craft.

A few miles south of the Brunswick, the Richmond descends from the heights of the Macpherson Range, on the slope of Mount Lindsay, one of the highest peaks of the northern table-land. The river has three branches, and is navigable on the main arm as far as Casino, 62 miles, and on Wilson's Creek to Lismore, 60 miles from the sea. The Richmond drains an area of about 2,400 square miles of country, rugged in its upper basin and heavily timbered, and in its lower course flowing through rich alluvial land, where the produce of semi-tropical climes grows luxuriantly.

Immediately south of the last-named stream is the Clarence—the largest river on the eastern watershed. It takes its rise in a spur of the Main Dividing Range, and runs in a south-easterly direction for 240 miles, carrying a considerable body of water through one of the richest districts of the colony, and emptying itself into the Pacific at Shoal Bay. The upper part of its basin is very rugged, so much so that its principal tributaries, the Mitchell, Nymboi, Timbarra, and Orara Rivers, rising in the New England table-land, between Armidale and Tenterfield, all flow in an opposite direction to the course of the main stream, generally trending to the north-east, and even, in the case of the Orara and the Nymboi, to the north-west. The Lower Clarence is a magnificent stream, averaging half-a-mile in width, from its mouth upwards, for nearly 50 miles, and it is navigable for 67 miles, as far as Copmanhurst. Ocean-going steamers of large tonnage ascend the river as far as Grafton, 42 miles from the sea. The area of country drained by the Clarence is over 8,000 square miles, or nearly half as large again as the basin of the Thames, whose course, although about as long as that of the Clarence, is navigable for only 60 miles.

Two short rivers, the Bellinger and the Nambucca, both navigable for some distance by small craft, enter the Pacific between the Clarence and Trial Bay.

Into Trial Bay, the Macleay, one of the principal rivers of the coast, discharges, after a course of 200 miles from its source near Ben Lomond.

With its principal feeders, the Guyra, the Apsley, and the Chandler, the Macleay drains an area of 4,800 square miles of country, the upper part of which, especially that portion through which the Apsley flows, is extremely rugged and precipitous. Series of waterfalls, some of which have a perpendicular descent of over 200 feet, mark the course of this stream, as it runs through narrow gorges whose sides rise in places to a height of about 2,000 feet. In its lower course the valley widens very considerably into magnificent alluvial plains, fast becoming the home of a numerous and thriving population. The Macleay is navigable for more than 30 miles, as far as the town of Greenhills, a few miles above Kempsey. The country through which it flows is for the most part thickly timbered.

The Hastings is the next stream met with, emptying itself into the sea at Port Macquarie. The country which it drains is rich, undulating, and densely wooded, and the area within its watershed is 1,400 square miles. Its chief arm is formed by the Wilson and Maria Rivers, on the left bank, the latter joining the main stream a few miles above Port Macquarie.

The Manning rises in the Main Dividing Range, and flows almost due east through a prosperous district, rapidly becoming settled. The valley through which it flows is densely wooded, and the agricultural land on both sides of the river is unsurpassed for fertility. The Manning has a length of 100 miles, and, like most of the rivers of the seaboard, its course lies through undulating country, broken in the upper portion, but widening out as it nears the sea. Its chief tributary is the Barrington, on the right bank; on the left, it receives the Barnard River, the Dawson, the Lansdowne, the Nowendoc, Rowley's River, and other small streams. The Manning is navigable for ocean-going vessels as far as Wingham, about 20 miles from its mouth.

Before reaching the Hunter, several small streams are met with, amongst which may be mentioned the Wollomba and Maclean, falling into Wallis Lake; the Myall, which empties into Myall Lake; and the Karuah, which reaches the ocean at Port Stephens.

The Hunter is one of the chief rivers of the colony, and has its source in the Liverpool Range. It flows first in a southerly direction until its confluence with the Goulburn; thence it takes an easterly course, and reaches the sea at Port Hunter, on the shores of which is situated the city of Newcastle. The Hunter receives numerous tributaries. The chief of these, in addition to the Goulburn, already mentioned, are the Wollombi, the Paterson, and the Williams. With its tributaries, the Hunter drains a country extending over 11,000 square miles—an area more than twice as large as the basin of the Thames. The river is navigable for ocean-going vessels as far as Morpeth, 34 miles from the sea; whilst the Paterson and the Williams are both navigable, the one for a distance of 18 miles, and the other for 20 miles. The upper courses of the main river and its branches are through hilly, if not mountainous districts; but its lower course is mainly through rich, sandy, alluvial flats. Through its lower course, the river drains the largest and most important coal-field in Australia, whose emporium is Newcastle, the second city of the colony in shipping and commerce. The length of the Hunter is over 200 miles.

Though less important than the Hunter, from a commercial point of view, the Hawkesbury, which reaches the sea at Broken Bay, is none the less one of the finest rivers of the eastern seaboard. It is formed by the united waters of many streams, each of considerable local importance. Its chief tributaries come from the table-land or gorges of the Blue Mountains, but the principal branch of the river itself rises in the main range, further south. The range forming the watershed between the Hawkesbury and the streams flowing eastward, leaves the main range near Lake Bathurst, runs north-easterly, and terminates at the sea near Coalcliff.

Under the name of the Wollondilly, the Hawkesbury has its source not many miles from Goulburn. Flowing past that town, it proceeds in a northerly direction until it receives the waters of the Cox River, which come from the Blue Mountains, after passing through wild gorges, wherein may be found some of the most magnificent scenery in Australia. From the junction of the Cox River the stream is known as the Warragamba, which name it retains until its junction with the Nepean. This river rises in the coast range overlooking Wollongong, and together with its tributary streams, the Cataract and Cordeaux, forms the source of the water-works from which Sydney now draws its supply. Though smaller than the Warragamba, the Nepean gives its name to the united waters of the two streams. After receiving the Nepean, the river flows along the foot of the Blue Mountains, through a rich valley highly cultivated. From the Blue Mountains it is augmented by the waters of two streams, the Grose and the Colo, and from the junction of the latter the river is called the Hawkesbury. Still running northward, it is joined by the Macdonald, an important stream, navigable for some distance above its confluence with the Hawkesbury. The Macdonald comes from the north, and joins the river on the left bank. After turning to the east, the Hawkesbury holds its course through broken country, the scenery of which has been pronounced equal to any other river scenery in the world, and finally reaches the sea at Broken Bay. Its course extends over 330 miles, and the drainage area may be set down as 8,000 square miles. Navigation is possible as far as Windsor, 70 miles from the mouth, and a little dredging would enable sea-going vessels to reach that town.

In the neighbourhood of Sydney, some small streams fall into Botany Bay. Two of these, the Woronora and George's River, have their sources on the eastern slope of the ranges in which the Nepean, Cordeaux, and Cataract rise, and after rapid courses unite their waters before falling into the bay.

Generally speaking, the rivers south of Sydney are of less importance than those to the north, as the width of the coastal strip narrows considerably. The Shoalhaven, nevertheless, merits more than passing notice. Rising in the coastal range and following the direction of the coast, it flows northerly through deep gullies, marked by magnificent scenery peculiarly Australian ; then turning sharply to the east, it enters the alluvial plains, which are counted amongst the richest and most productive in the country. The Shoalhaven is 260 miles in length, but is navigable only for a few miles, and drains a district 3,300 miles in area. Farther south, in the narrow belt between the ranges and the sea, flow the Clyde, Moruya, Tuross, and Bega Rivers. They all pass through rich, undulating, agricultural country, and each has an average length of 60 to 70 miles. The Towamba River, at the extreme south of the colony, empties itself into the Pacific at Twofold Bay.

The physical aspect of the eastern rivers is much the same, their upper course being amidst broken and mountainous districts, and their lower waters flowing through undulating country with rich alluvial flats along their banks, for the most part highly cultivated. Where uncultivated, the country is densely covered with timber, some of which attains a magnificent growth, yielding the finest hardwood, and, in the north, cedar and pine.

Though belonging to another river system, the upper basin of the Snowy River is situated in New South Wales. This river receives the snow-fed streams rising on the southern slopes of the Monaro Range, its principal tributaries being the Bombala and the Eucumbene. The Snowy River and its tributaries water a considerable portion of the highest table-land of the colony, between the mountain ranges of which are found large tracts of arable land, where the produce of colder climes may be grown to perfection. After leaving New South Wales, the Snowy has a rapid and tortuous course, and finally enters the sea between Cape Howe and Bass' Strait, in the colony of Victoria. The area of its watershed in New South Wales is about 2,800 square miles.

Harbours and Ports.

With a coast so extensive as that of New South Wales, it would be natural to expect many harbours and bays affording outlets for the produce of the country, and such is the case. Besides harbours of commercial importance, there are others which afford shelter for vessels in stress of weather, and a refuge in time of danger. Fortunately, however, harbours of refuge are not often required. The coast of the colony is singularly free from cyclones, hurricanes, and like visitations. Gales are certainly not unknown, and casualties are not infrequently recorded ; but the coast is very safe, and in many cases disasters are to be attributed to causes which ordinary prudence could have averted.

Inside Cape Byron, in the north of the colony, the bay of the same name offers shelter, in all but north-east weather, to vessels trading to Queensland. A large pier has been constructed, by means of which the produce of the neighbouring districts of the Brunswick and Tweed may be shipped when an entrance to these rivers is impracticable.

At Shoal Bay, the entrance to the Clarence, the anchorage is safe and commodious, and when the works designed for improving the river entrance are completed, it promises to be one of the best ports on the coast.

Trial Bay, at the mouth of the Macleay, affords ample shelter and safe anchorage. The Government have erected a large prison on the hill overlooking the Bay, and are now utilising the prisoners' labour in constructing a breakwater, with the view of making Trial Bay not only a harbour of refuge, but a shipping port. When this design is accomplished, there is every reason to suppose that it will become one of the most frequented places on the coast, as the resources of the Macleay District are great and are rapidly developing.

Port Macquarie, at the mouth of the Hastings, and the harbour at Forster, near Cape Hawke, afford good anchorage. Port Stephens, a little farther south, offers at all times the most safe and commodious harbour desirable. As a natural port it is hardly inferior to Port Jackson, and the scenery of its shores is very beautiful. At present Port Stephens is little used, owing to its proximity to Newcastle and to the sparseness of the population in its immediate district.

Twenty miles farther south is Port Hunter, at the mouth of the river of that name. When first used, the harbour was inconvenient and somewhat dangerous; but this has been altered entirely by the breakwaters and training-walls which have been constructed. Newcastle harbour is now safe and roomy, with shipping facilities equal, if not superior, to those found in any other Australian port. Magnificent wharves line its shores, provided with hydraulic and steam cranes of the most modern type. The length of wharf frontage is more than two miles, the trade is large and increasing, and the city ranks third amongst Australasian seaports. The importance of Newcastle is mainly due to the existence of immense coal deposits in its neighbourhood, which supply not only all the Australian colonies, but the China seas, the Pacific slopes of the United States, and the countries bordering on the Spanish main. Latterly, too, large shipments of wool have been made direct to English ports, Newcastle having direct communication by railway with the northern districts of the colony.

A few miles farther south is Lake Macquarie, in the centre of the coal-field of the Newcastle district, and covering an area of 44 square miles. The great drawback to the lake as a shipping port has been the shallowness of its entrance; but extensive dykes and training-walls have been commenced, which have already increased the draught of water in the channel, and with some further improvements Lake Macquarie will become an important shipping place.

Broken Bay, 15 miles north of Port Jackson, forms the mouth of the River Hawkesbury. It has a bold entrance, and on Barranjoey, the southern headland, is erected a fine lighthouse. The bay has three branches, Brisbane Water being the northern, the Hawkesbury mouth the centre, and Pittwater the southern arm. The first-named opens out into a series of lakes, and the town of Gosford, standing at the head of one of them—the Broadwater—is the centre of an import district. The scenery at and around Broken Bay is characteristic Australian, and in natural beauty rivals even Sydney Harbour. So of Broken Bay the coast-line is a succession of high cliffs and sa beaches.

The entrance to Port Jackson lies between perpendicular cliffs of sa stone several hundred feet high, and only 74 chains, or nearly one m apart. Sydney Harbour has been too often described to requir lengthy reference here. It holds the first place amongst the harbo of the world for convenience of entrance, depth of water, and natu shipping facilities. Its natural beauties charm all who visit its sho and in the quiet waters of its numerous bays and coves the nav of the world might securely rest. The area of water surface of harbour proper is 15 square miles, and the shore-line is 165 miles circuit. At the South Head is erected a splendid lighthouse, fit with an electric arc light, the power of which is scarcely exceeded any coast. On the shores of Port Jackson stands Sydney, the capi of New South Wales and the mother city of the Australias. The c and its suburbs occupy 141 square miles, and have within th boundaries about 410,000 people.

Botany Bay, the first port entered by Captain Cook, the discoverer this territory, lies a few miles south of Sydney. It covers an area of square miles, and receives the waters of several small rivers. The has very little trade, by reason of its proximity to Sydney, but it frequented by craft in search of shelter during stress of weather.

Wollongong, Kiama, and Ulladulla are small harbours which have b snatched, as it were, from the sea, and are important shipping places

About 80 miles to the south of Sydney the coast is broken by important inlet called Jervis Bay. Its entrance is 2 miles wide, a on its bosom safe anchorage may be found in any part. It is surroun by rich agricultural and mineral country, as yet unexploited. Nat has been so bountiful to the country as a whole that particular distri undoubtedly rich, must remain for a while undeveloped, and po which would in older countries be prized for their convenience a capacity, here remain unused, save as refuges in stormy weather.

Bateman's Bay, at the entrance to the Clyde, is an inlet of so importance, and coastal steamers also load produce at the mouths of Moruya, Tuross, and Bega Rivers.

Twofold Bay is a magnificent sheet of water, near the southern li of the colony. Formerly it was the seat of a large whaling trade, whic now, however, all but extinct. It is well sheltered, and a fine jetty affo ample shipping facilities. Its trade is chiefly with the neighbouri colonies, in produce and live stock, the bay being the nearest outlet the sea-coast for the rich district of Monaro. A railway is planned connect the port with the table-land and the metropolis, and Twof Bay promises to become a considerable shipping place in the near futu On its shores is situated the town of Eden.

Besides the ports and harbours, properly so called, which have been above enumerated, there are several lakes, or arms of the sea, which will, with the development of the resources of the country, become ports of shipment. From Cape Hawke to Port Stephens a chain of lakes extends, communicating with the latter through the Myall River, and covering a large area. The most extensive are Wallis Lake, Myall Lake, and the Broadwater. The country round about is richly timbered, but its resources are still undeveloped. Between Lake Macquarie and Broken Bay is Tuggerah Lake, also an extensive sheet of water. South of Wollongong is Lake Illawarra, of considerable area, but shallow, and towards the south of the colony are Coila and Tuross Lakes, into which the Tuross River discharges.

ISLANDS.

No islands of any note belong geographically to New South Wales. The Broughton Islands, lying a few miles northward of the Heads of Port Stephens, are the largest in extent. Solitary Island, situated near the northern part of the coast, between the Bellinger and Clarence Rivers, and Montagu Island, 18 miles south-east of the Moruya River estuary, have been selected as the sites for lighthouses, but are not otherwise important. Norfolk Island, having an area of 8,607 acres, it is proposed to annex to New South Wales; and Lord Howe Island, 3,220 acres in extent, and lying some 360 miles off the coast, in the latitude of Port Macquarie, belongs politically to the colony.

WESTERN WATERSHED.

The western watershed of the colony is in physical features and geographical character the antithesis of the eastern. Instead of a narrow strip of country shut in by the sea and mountains, intersected by numerous short rivers with a rapid flow, the western watershed forms a vast basin through which the quiet waters of a few great rivers have their long though uncertain courses. The rivers of the western region all belong to the fluvial system of the Murray, which carries to the Southern Ocean, through the colony of South Australia, the drainage of a watershed immense in extent, embracing the northern portion of Victoria, and the western and larger part of New South Wales, and reaching almost to the centre of Queensland.

The Murray, or Hume, the southern branch of this vast river system, rises in the Snowy Mountains, from which its three principal sources, the Hume, the Tooma, and the Indi descend. The first two of these streams rise on the northern and western slopes of Mount Kosciusko; the Indi, which is really the main river, has a longer course, rising in a gully near the Pilot Mountain, at an elevation of 5,000 feet above the sea. From the confluence of these rivers the Murray rapidly descends towards the plains below Albury, where it is only 490 feet above sea-level, and has still a course of 1,439 miles to run. From Albury downwards the river receives many tributaries on both banks, those from New South Wales being the most important. Above Albury the tributaries are for the most part mountain torrents, carrying to the main stream the melted snows of the Australian Alps. In its lower course, however, the Murray is augmented, through the Murrumbidgee and Darling, by the waters of secondary systems as important as its own.

Before being joined by the Murrumbidgee, the Murray receives, from a series of ana-branches, the drainage of a large portion of the country lying between the two main streams. The Billabong Creek runs almost through the centre of the plain spreading between the Murray and Murrumbidgee; in the middle of its course it communicates with the latter river, through Colombo and Yanko Creeks, whilst on the south it feeds the Murray by the channel of the Edward River. The Edward is itself an important stream. It forms with the Wakool, Tupal, and Bullatale Creeks, and many other smaller and less important watercourses, a fluvial system, interlacing the whole country from Tocumwal to the Murrumbidgee junction, which has been justly named Riverina. The Edward and Wakool are together navigable for over 400 miles, as far as the important town of Deniliquin. From its furthest source at the foot of the Pilot Mountain to the town of Albury, the Murray has a length of 280 miles. Thence to the Darling River junction its course is 852 miles, and from that point to the sea, below Lake Alexandrina, it is 587 miles in length. The river has thus a total course of 1,719 miles, of which 1,250 are within the colony of New South Wales. It has been navigated as far as the Ournie gold-field, about 150 miles above Albury, and 1,590 miles from its mouth.

The Murrumbidgee has its source at the foot of a hill overlooking the Coolamon Plains, at a height of nearly 5,000 feet above the sea. Its course first shapes itself southward, but near the town of Cooma it takes a sharp curve and runs in a northerly direction until it approaches Yass. Here it curves again, trending to the west in a line parallel to the Murray; but turning south-west on receiving the Lachlan, it finally joins the main river after a course of 1,350 miles. The area drained by the Murrumbidgee is estimated at 15,400 square miles. In the upper part of its course it receives from both sides numerous rivers and creeks, the most important of which are the Umaralla, Molonglo, and Yass Rivers on its right, and the Goodradigbee and Tumut Rivers on its left bank. All these rivers flow through mountainous country over a series of plateaux, which from the Coolamon and Coorangorambula Plains to the plains round Gundagai and Wagga successively diminish in height from 5,000 feet to 720 feet and 607 feet above the sea.

The upper valleys, both of the Murrumbidgee and the Murray, are of similar physical aspect. Both rivers are snow-fed, the Murray to a greater extent than its tributary, owing to the higher elevation of the mountains and plateaux from which it descends. In the lower basins they are also similar in character, and the plains which they drain are amongst the most fertile in the colony. With an intelligent system of water conservation and irrigation, the lower valleys of these rivers would support a large population of agriculturists on land hitherto devoted entirely to sheep pasturing.

The chief tributary of the Murrumbidgee is the Lachlan, rising in the Main Dividing Range, where its principal feeders also have their source. These are the Boorowa, Crookwell, Abercrombie, and Belubula—all rapid streams, occasionally swollen by melting snow from the table-land. After receiving the Boorowa, the Lachlan flows to the Murrumbidgee, through 500 miles of plain country, without receiving any tributary of permanent character. The water-courses which carry off the surplus water from the rich plains on either side of the river, only reach it in time of flood. The total length of the river is 700 miles, and its basin has an area of 13,500 square miles. The country drained by the Lachlan is similar in most respects to that of the Murray and Murrumbidgee, and with regular rainfall or irrigation the light red soil and sandy loam of its lower valley would yield abundant returns to the farmer. The lines of demarcation between the Lachlan basin and that of the Murrumbidgee on the south and of the Darling on the north-west, are hardly perceptible on the ground, so flat is the country through which these great rivers flow.

Of all the tributaries of the Murray, the Darling drains the largest area, extending as it does over the greater portion of the western district of New South Wales, and embracing nearly all Southern Queensland. From its confluence with the Murray at Wentworth up to its junction with the Culgoa a few miles above Bourke, the Darling receives only two tributaries, the Paroo and the Warrego, both intermittent, though of vast size in times of flood. For over 1,000 miles this great river holds its solitary course, Nile-like, feeding the thirsty plains of the south with water falling many hundred miles distant on the downs of Queensland. The course of the river is tortuous in the extreme: in many places a narrow neck of land, a mile or two across, separates parts of the river 20 miles distant if the stream were followed. The Darling presents the phenomenon, not uncommon in Australian rivers, of banks much higher than the plain behind; indeed, the river bed itself, though from 30 to 40 feet beneath the bank, is in some places but little below the general level of the country. Successive floods have added to the height of the banks, and have raised the bed of the stream correspondingly.

The Darling has no source under that name, which applies only to that part of the river as far as the Bogan junction. Above this point it takes the name of the Barwon, until its confluence with the Gwydir; then it is known as the Macintyre, and afterwards the main branch receives the name of the Dumaresq. The last-named stream has its source in the Dividing Range, on the summit of the table-land at the extreme north-east of the colony, not far from the head of the Richmond. The Dumaresq, Macintyre, and Barwon form, however, what might

really be called the Upper Darling, and this appellation would be g
graphically accurate. The variety of names, by which not only t
Darling, but many other Australian rivers are known, is due to t
fact that they were discovered in sections, the identity of which w
not established until years afterwards, and the sectional names ha
survived.

The Darling receives, in its upper course, many tributaries, which dra
the southern portion of Queensland, but these rivers only flow for a sh
part of their courses in New South Wales. Chief among them are t
Mooni, Narran, Bokhara, Culgoa, Warrego, and Paroo. The princip
affluents of the Darling within the boundaries of New South Wales a
on the left bank. The Gwydir, Namoi, Castlereagh, Macquarie, a
Bogan are the most important. These streams are all of considerab
length and similar in character; their upper valleys are on the tab
lands, and their lower courses lie through alluvial plains and go
pastoral country. The Darling is navigable, in times of freshets, as f
as the township of Walgett, 1,758 miles from its confluence with t
Murray; thence to the sea the distance is 587 miles, making a total leng
of navigable water from Walgett to the sea of 2,345 miles, and
therefore ranks high amongst the rivers of the world, as estimated
navigable length. Unfortunately, however, its upper course is op
only during part of the year.

If the fluvial system of the Murray and Darling and their princip
tributaries be considered in the light of the facilities it affords for wat
carriage, its value will appear not inconsiderable. The Darling Riv
may be made available for navigation for 1,758 miles, from Wentwor
to Walgett; the Murrumbidgee and Lachlan combined have 900 mile
and the Murray, from Ournie gold-field to the point where it enters t
territory of South Australia, has a length of 1,120 miles. If to this
added the navigable length of the Wakool and Edward, the total distan
of river which could be navigated reaches nearly 4,200 miles in t
western district alone—a length more than 50 per cent. greater th
that of the railways of the colony.

Here and there along the course of the western rivers are found lak
sometimes of considerable dimensions. These lakes are in reality shall
depressions, receiving water from the overflow of the rivers in times
flood, and in return feeding them when the floods have subsided. La
Urana is the most important in the Murray and Murrumbidgee basi
and Lakes Cowal, Cudgellico, and Waljeers, in that of the Lachla
Along the Darling are Lakes Poopelloe and Gunyulka on the left ban
and Laidley's Ponds and Lakes Pammaroo, Tandou, and Cawndilla
the right, near Menindie. On the South Australian frontier are La
Victoria, formed by the overflow of the Murray, and others of l
importance. The area of these lakes is undefined, as they vary in si
according to the rainfall, sometimes covering vast extents of count
and at other times being reduced to the proportions of mere waterhol
whilst in seasons of great drought they are absolutely dry.

CLIMATE.

IT is accepted as an ascertained fact that the temperature of lands in the southern hemisphere is lower than that of countries situated in corresponding latitudes north of the equator. To this general law New South Wales is no exception. The researches of the Government Astronomer of the colony conclusively confirm this, and show, from the records of temperature extending over many years, that the climate of New South Wales is one of the most temperate and uniform anywhere experienced. Just as the country is divided naturally into three distinct geographical regions, so it is separated into the same climatic divisions, each of which has its characteristic features.

The coastal region extends from 28° to 37° south latitude, and if the temperature accorded with that of similar latitudes in the northern hemisphere, Casino and Grafton would resemble the country bordering on the Gulf of Suez, in the Red Sea; Delhi, in India; Ningpo, in China; and New Orleans, in the United States. Such, however, is not the case. Casino has a mean temperature of 67·8°, only 2·0° more than that of Messina, in Sicily, which lies more than 9° further from the equator. Eden, which is situated at the extreme south of the colony, in latitude 37°, has a mean temperature of 60·3°, which is practically the same as that of Nice and Rome—places respectively 466 and 339 miles further removed from the equator. Not only is the climate of the coastal region milder in regard to average temperature than the corresponding latitudes in the northern hemisphere, but the range is not so great. This is a very important factor in estimating the healthiness of a country.

As regards Sydney, situated as it is midway between the extreme points of the colony, in latitude 33° 51′ south, the same truth is apparent. Its mean temperature is 62·9°, and corresponds with that of Barcelona, the great maritime city of Spain, and of Toulon in France, the former being in latitude 41° 22′, and the latter, in 43° 7′ N. At Sydney, the mean summer temperature is slightly under 71°, and that of winter 54°. The range is thus 17° Fahrenheit, while the mean yearly average for a period of 38 years was 63°. At Naples, where the mean temperature for the year is about the same as at Sydney, the summer temperature reaches a mean of 74·4°, and the mean of winter is 47·6°, with a range of 27°. Thus the summer is warmer and the winter much colder, than at Sydney. The greatest temperature in the shade ever experienced in Sydney was in 1896, when 108·5° in the shade was registered; and the lowest winter was 35·9°, giving a range of 72·6°. At Naples the range has been as great as 81°, the winter minimum falling sometimes below the freezing point.

Taking the coast generally, the difference between the mean summer and mean winter temperature may be set down as averaging not more than 24°—a range so small as to be but rarely found elsewhere. The famed resorts on the Mediterranean sea-board bear no comparison with the Pacific slope of New South Wales either for natural salubrity or for the comparative mildness of the summer and winter, while the epidemics and pestilences which have devastated those regions of ancient civilisation have never made their appearance on these shores.

Passing from the coast to the table-land, a distinct climatic region is entered. On the high southern plateau, at an elevation of 4,640 feet, stands the town of Kiandra, having a mean summer temperature of 56·4°, and a winter temperature of 32·6°, corresponding with that of Dunfermline, in Scotland, in latitude 56° 5′ N., while Kiandra is in 35° 52′ S. Cooma, in the centre of the Monaro plains, at an elevation of 2,637 feet above sea-level, enjoys a summer as mild as either London or Paris, while its winters are far less severe. On the New England table-land, the climate of Armidale and other towns may be considered as nearly perfect as can be found. The yearly average temperature is barely 56·4°, while the mean summer temperature only reaches 67·7°, and the winter temperature falls to 44·2°, a range approximating closely to that of the famous health resorts in the south of France.

The climatic conditions of the western districts of the colony are entirely different from those of the other two regions, and have been often cited as disagreeable. Compared with the equable temperature of the coastal district or the table-land, there may appear some justification for such a reputation, but only by way of comparison. The climate of the great plains, in spite of the heat of part of the summer, is very healthy, and an inspection of the death-rates, both of children and grown persons, which are given elsewhere, amply bears out this view. The town of Bourke may be taken as an example. Seated in the midst of the great plain of the interior, it illustrates peculiarly well the defects, as well as the excellences, of the climate of the whole region. Bourke has exactly the same latitude as Cairo, yet its summer temperature is 1·5° less than that of the Egyptian city. New Orleans also lies on the same parallel, but the American city is 4° hotter in summer. As regards winter temperature, Bourke leaves little to be desired. The mean winter reading of the thermometer is 54·5°, and accompanied as this is by clear skies and an absence of snow, the season is both refreshing and enjoyable. The great heat experienced on occasional days in summer, when the thermometer reads considerably over 100° in the shade, is not accompanied by that moisture in the air which at the sea-coast would make a less degree of heat almost unbearable.

New South Wales falls naturally into three great meteorological divisions, viz., the coastal, embracing an area of 38,200 square miles; the table-lands, covering an area of 84,900 square miles; and the western district, with an area of 187,600 square miles. The last-named might, from its size and variable rainfall, be split into two districts with the 146° of east longitude as an arbitrary division. The coastal district has an average rainfall of 41·98 inches. In this district there are several stations close to the ocean which are subject to exceptional and varying rainfall. Amongst these may be mentioned Port Macquarie and the Clarence Heads, the first having a mean annual fall of 63·71, and the latter of 57·46 inches; while at Newcastle and Sydney the respective figures are 48·73 and 49·85 inches; and at Eden, almost the southern extremity of the colony, the average fall is only 36·28 inches. On the table-lands the rainfall averages 33·39 inches; there is, however, a small area at the southern portion of the table-lands where the high average of 63·55 inches is experienced. West of the table-lands the amount of the fall decreases as the distance from the Pacific increases, and in a large area west of the Darling the average annual rainfall is less than 10 inches. For the whole area of the Western Division the average does not exceed 20·64 inches. The mean rainfall of the colony for the last twenty-five years was about 25 inches, but this figure can hardly be taken as conveying any meaning, except perhaps that it shows the greater part of the colony to be favoured with but slight rainfall.

The following table shows the average rainfall at some of the principal stations, which are arranged in the order of their latitude, in each of the great divisions:—

Station.	Least distance from the East Coast in miles.	Mean annual Rainfall in inches.	Station.	Least distance from the East Coast in miles.	Mean annual Rainfall in inches.
Coastal District—Area, 38,200 square miles					
Casino	28	46·11	Windsor	30	33·18
Lismore	13	59·16	Emu	36	33·09
Clarence Heads	0	57·46	Parramatta	16	38·68
Grafton	22	39·80	South Head	0	48·59
Port Macquarie	0	63·71	Sydney	5	49·85
Taree	10	50·33	Liverpool	18	38·73
Scone	78	25·02	Picton	21	30·21
Muswellbrook	68	24·03	Bulli	0	51·87
Singleton	40	31·68	Wollongong	0	43·31
Jerry's Plains	53	24·79	Nowra	6	39·94
Morpeth	15	46·08	Cape St. George	0	58·11
West Maitland	18	35·47	Moruya Heads	0	38·50
Port Stephens	0	57·65	Bodalla	7	38·48
Newcastle	1	48·73	Bega	8	33·61
Pitt Town	26	36·92	Eden	0	36·28

Station.	Least distance from the East Coast in miles.	Mean annual Rainfall in inches.	Station.	Least distance from the East Coast in miles.	Mean annual Rainfall in inches.
Table-lands—Area, 84,900 square miles.					
Tenterfield	80	34·74	Armidale	81	33·01
Inverell	124	32·28	Eversleigh	78	33·20
Glen Innes	90	35·42	Walcha	83	31·78
Bundarra	113	30·80	Goonoo Goonoo	110	27·31
Quirindi	115	29·78	Young	140	27·95
Murrurundi	94	33·25	Mittagong	27	40·17
Cassilis	120	25·13	Moss Vale	31	40·26
Mudgee	121	27·41	Murrumburrah	126	27·26
Orange	124	39·42	Crookwell	81	34·25
Bathurst	96	24·72	Goulburn	54	26·62
Forbes	176	21·47	Yass	92	25·65
Kurrajong	35	52·26	Lake George	53	30·03
Mount Victoria	61	37·87	Queanbeyan	60	24·00
Katoomba	58	64·80	Kyamba	134	31·75
Carcoar	111	32·04	Kiandra	88	63·55
Springwood	42	43·65	Cooma	52	19·86
Cowra	126	28·86	Bombala	37	24·75
Western District, East of 146° East Longitude—Area, 87,800 square miles.					
Moree	204	25·13	Nyngan	269	21·32
Warialda	162	30·09	Cannonbar	272	18·80
Bingara	153	32·80	Dubbo	177	23·51
Brewarrina	345	18·49	Condobolin	227	19·97
Walgett	286	20·08	Marsdens	187	20·59
Narrabri	193	27·39	Wagga Wagga	158	23·27
Gunnedah	156	27·40	Urana	213	18·35
Coonabarabran	185	32·35	Albury	175	29·22
Western Plains, West of 146° East Longitude—Area, 99,800 square miles.					
Milparinka	605	9·58	Wentworth	478	12·24
Bourke	386	16·86	Hay	309	15·39
Wilcannia	473	11·53	Euston	422	12·76
Cobar	345	17·21	Deniliquin	287	17·08
Mount Hope	296	17·91	Moama	290	17·21

It is fortunate for the country that dryness is one of its characteristics; otherwise, instead of being the abode of health, the interior of the colony would, with abundant rains, have become an impenetrable jungle, the lurking-place of those malarial fevers which devastate so many fair regions of the Old World and America. New South Wales may, therefore, be compared favourably with any part of the world; and, taking into consideration the comparatively low latitudes in which it is situated, it offers a most remarkable variety of temperate climates. From Kiandra, on the highest part of the Great Dividing Range, to Bourke, on the great interior plain, the climate may be compared with that of the region of Europe extending from Edinburgh to Messina, but more generally resembling that of southern France and Italy. It may therefore be regarded as peculiarly fitted for the habitation of people of European race, embracing, as it does, within its limits, the climatic conditions under which the most advanced races of the world have prospered. The following tables, showing the average meteorological conditions of the places given in the preceding table, fairly represent the whole colony :—

Station.	South latitude.	East longitude.	Altitude.	Mean.				Highest reading of thermometer in shade.	Lowest reading of thermometer in shade.
				Yearly temperature in shade.	Summer temperature in shade.	Winter temperature in shade.	Daily range of thermometer in shade.		
Coastal District.									
	° ′	° ′	feet.	°	°	°	°	°	°
Casino	28·50	153·00	82	67·8	77·0	57·0	25·3	116·4	24·6
Lismore	28·50	153·21	52	69·7	78·1	59·4	21·0	108·2	28·2
Clarence Heads	29·28	153·21	122	69·0	76·0	60·6	15·6	104·8	37·4
Grafton	29·43	152·56	40	68·5	77·1	58·1	26·0	118·0	20·9
Port Macquarie	31·25	152·54	49	64·2	72·1	55·2	16·8	97·6	30·4
Taree	31·58	152·29	30*	65·6	74·8	55·1	20·2	112·6	24·0
Scone	32·04	150·53	680	62·2	74·4	49·3	22·0	114·2	22·2
Muswellbrook	32·17	150·53	475	64·5	76·7	51·6	25·2	117·6	20·0
Singleton	32·34	151·09	135	65·0	76·4	53·3	19·2	109·2	22·0
Jerry's Plains	32·35	150·55	150*	66·5	76·6	54·6	22·0	107·9	30·2
Morpeth	32·46	151·37	20	62·7	72·9	51·9	20·6	102·7	26·0
West Maitland	32·47	151·35	40	64·1	74·7	52·8	20·0	109·9	24·0
Port Stephens	32·49	152·09	30*	64·2	72·0	55·5	19·5	104·2	30·6
Newcastle	32·55	151·50	34	64·6	72·4	55·4	16·3	107·5	31·3
Pitt Town	33·34	150·53	40*	64·1	74·5	52·5	20·2	113·0	27·2
Windsor	33·36	150·49	58	64·5	74·6	52·9	26·1	113·9	21·5
Emu	33·46	150·40	87	62·8	73·4	51·0	17·7	107·6	26·8
Parramatta	33·49	151·02	49	62·0	70·5	52·3	20·8	104·2	20·9
Sydney	33·51	151·13	146	62·9	70·8	54·0	13·6	108·5	35·9
Liverpool	33·58	150·59	50	59·8	70·8	48·2	20·5	106·0	22·0
Picton	34·10	150·40	549	59·4	69·5	48·1	22·5	111·7	19·7
Bulli	34·18	150·58	54	63·0	69·1	55·8	18·7	99·7	34·6
Wollongong	34·25	150·56	54	62·7	69·9	54·8	17·2	113·4	31·9
Nowra	34·55	150·38	30	62·9	70·3	54·4	21·9	110·3	31·6
Cape St. George	35·12	150·45	175	61·8	69·2	53·9	14·6	105·2	25·5
Moruya Heads	35·53	150·06	50	61·5	68·5	53·5	18·5	113·8	31·1
Bodalla	36·04	149·59	40	59·8	68·4	49·8	25·1	114·1	18·6
Bega	36·38	149·53	50*	60·3	69·3	50·2	23·9	115·6	16·6
Eden	37·00	149·59	107	60·3	68·0	52·0	13·9	106·0	29·3
Table-lands.									
Tenterfield	29·05	152·04	2,827	59·1	69·6	47·2	25·0	107·1	12·0
Inverell	29·48	151·10	1,980	60·1	73·2	46·0	23·5	108·6	13·4
Glen Innes	29·48	151·44	3,518	58·4	69·2	46·1	26·1	107·3	14·4
Bundarra	30·14	151·10	2,000*	59·9	69·4	48·0	23·9	96·5	17·5
Armidale	30·32	151·38	3,333	56·4	67·7	44·2	24·7	105·2	13·9

* Approximate heights.

Station.	South latitude.	East longitude.	Altitude.	Mean.				Highest reading of thermometer in shade.	Lowest reading of thermometer in shade.
				Yearly temperature in shade.	Summer temperature in shade.	Winter temperature in shade.	Daily range of thermometer in shade.		
Table-lands—*continued*.									
	° ′	° ′	feet.	°	°	°	°	°	°
Eversleigh	30·34	151·40	3,576	55·6	67·1	42·9	24·2	102·3	13·0
Walcha	31·02	151·35	3,386	53·8	65·0	41·4	23·4	102·8	13·3
Goonoo Goonoo	31·20	150·54	1,550	61·7	74·2	48·2	26·1	105·0	19·0
Quirindi	31·32	150·41	1,278	65·6	77·4	52·1	24·1	107·6	17·0
Murrurundi	31·46	150·51	1,545	60·4	72·3	47·9	18·5	107·3	19·0
Cassilis	32·00	150·00	1,500	61·1	74·7	47·1	20·9	111·7	20·8
Mudgee	32·35	149·35	1,635	62·1	74·3	49·3	29·2	114·4	17·6
Orange	33·18	149·09	2,843	55·0	67·3	42·4	22·0	100·2	16·0
Bathurst	33·24	149·37	2,200	57·0	69·7	44·1	28·5	112·5	13·0
Forbes	33·27	148·05	789	62·9	76·7	48·7	24·4	118·4	24·0
Kurrajong	33·33	150·45	1,870	53·4	61·7	44·3	13·2	99·5	25·5
Mount Victoria	33·36	150·15	3,490	54·5	65·4	42·6	20·1	106·0	11·9
Katoomba	33·38	150·18	3,349	52·6	61·9	42·2	12·7	96·0	25·9
Carcoar	33·41	149·14	2,380	55·7	68·0	43·1	24·2	99·4	23·5
Springwood	33·43	150·34	1,216	61·2	70·6	51·3	17·0	104·8	32·9
Woodford	33·44	150·24	2,191	57·6	66·1	47·9	...	93·4	34·4
Cowra	33·54	148·45	987	63·2	77·4	48·7	22·2	116·1	21·6
Young	34·18	148·21	1,416	61·4	73·7	49·1	28·5	113·4	20·9
Mittagong	34·27	150·30	2,069	56·4	67·0	45·3	18·0	104·6	21·6
Moss Vale	34·32	150·23	2,205	55·9	66·4	44·5	17·0	103·7	18·9
Murrumburrah	34·32	148·23	1,268	62·4	74·3	49·9	25·2	106·1	24·0
Crookwell	34·27	149·30	2,000*	52·4	64·4	40·2	24·0	98·8	12·1
Goulburn	34·45	149·45	2,129	56·6	67·9	44·3	25·7	109·0	13·0
Yass	34·52	148·56	1,657	59·0	70·8	46·9	20·2	105·0	22·5
Lake George	35·12	149·25	2,267	56·8	68·0	44·0	20·5	105·0	21·8
Queanbeyan	35·20	149·15	1,899	57·1	70·0	43·6	23·2	109·4	20·1
Kyamba	35·29	147·44	750	59·0	73·0	45·4	...	116·0	16·0
Kiandra	35·52	148·32	4,640	44·7	56·4	32·6	25·8	102·3	†
Cooma	36·12	149·09	2,637	54·0	65·7	41·7	28·5	107·1	[illegible]
Bombala	36·52	149·10	3,000	55·3	66·1	43·6	26·9	104·1	[illegible]
Western District, East of 146° East Longitude.									
Moree	29·29	149·53	680	69·0	80·6	55·7	26·7	117·3	[illegible]
Warialda	29·35	150·37	1,106	63·2	75·8	49·7	27·2	117·7	[illegible]
Bingara	29·56	150·37	1,200*	63·8	76·3	50·3	26·6	116·6	[illegible]
Brewarrina	29·58	146·54	430*	68·4	83·1	52·8	27·7	122·3	[illegible]
Walgett	30·02	148·10	522	68·2	82·1	53·3	25·3	118·4	[illegible]
Narrabri	30·20	149·46	697	67·0	81·1	52·3	28·1	118·9	[illegible]
Gunnedah	31·01	150·15	874	66·4	79·3	52·3	26·8	120·6	[illegible]
Coonabarabran	31·16	149·18	1,710	60·1	73·0	46·7	32·7	111·5	[illegible]
Cannonbar	31·22	147·23	520	68·1	81·0	54·2	27·7	118·9	[illegible]
Dubbo	32·18	148·35	863	63·1	76·4	49·2	25·8	113·4	[illegible]
Condobolin	33·12	147·14	700*	65·2	78·8	51·1	26·1	111·3	[illegible]
Marsdens	33·52	147·38	700*	65·6	79·6	51·0	24·0	113·8	[illegible]
Wagga Wagga	35·07	147·27	615	60·9	74·9	46·9	28·1	117·6	[illegible]
Urana	35·20	146·20	400	62·5	76·0	48·8	23·6	116·5	[illegible]
Albury	36·06	147·00	531	60·6	74·2	47·1	28·2	117·3	[illegible]

* Approximate heights. † Kiandra—Lowest, 20·0° below zero.

Station.	South latitude.	East longitude.	Altitude.	Mean.				Highest reading of thermometer in shade.	Lowest reading of thermometer in shade.
				Yearly temperature in shade.	Summer temperature in shade.	Winter temperature in shade.	Daily range of thermometer in shade.		
Western District, West of 146° East Longitude.									
	° ′	° ′	feet.	°	°	°	°	°	°
Milparinka	29·45	141·52	1,000*	68·3	82·7	53·6	28·1	119·8	25·3
Bourke	30·03	145·58	350	69·6	83·6	54·5	27·2	127·0	26·3
Wilcannia	31·31	143·23	246	66·5	79·9	52·5	28·2	120·8	25·5
Cobar	31·32	145·50	803	66·4	80·1	51·9	29·5	118·7	25·0
Mount Hope	32·56	145·55	600*	65·3	79·1	51·3	24·0	116·1	24·6
Wentworth	34·08	141·58	144	64·2	76·8	51·3	26·4	119·0	25·0
Hay	34·30	144·56	305	63·6	76·0	50·6	28·3	117·3	21·1
Euston	34·32	142·51	188*	64·0	76·4	51·1	33·4	124·5	17·1
Deniliquin	35·32	145·02	320	61·5	74·1	48·5	30·7	121·1	18·0
Moama	36·05	144·50	320	62·3	75·6	48·1	28·6	117·0	24·0

* Approximate heights.

The following table shows the average monthly meteorological conditions of Sydney during the thirty-eight years ended 1896 :—

Month.	Atmospheric pressure.		Temperature.				Rainfall.			
	Average reading of standard barometer at 9 a.m., corrected to 32° Fahrenheit and to mean sea-level.	Average hourly reading of self-registering electric barograph, corrected to 32° Fahrenheit, but not to sea-level.	Mean standard (in shade).	Average reading of maximum thermometer (in shade).	Average reading of minimum thermometer (in shade).	Mean of sea-water (3 feet below surface).	Average monthly.	Greatest monthly.	Least monthly.	Average number of rainy days.
	in.	in.	°Fah.	°Fah.	°Fah.	°Fah.	in.	in.	in.	days.
uary	29·965	29·771	71·5	78·2	64·9	71·2	3·690	10·489	0·419	14
ruary	30·001	29·806	70·9	77·0	64·7	71·6	5·495	18·556	0·401	14
ch	30·088	29·894	69·3	75·3	63·1	70·8	5·441	18·700	0·419	15
il	30·142	29·946	64·9	70·8	58·2	68·3	5·608	24·490	0·060	14
	30·135	29·935	58·4	64·9	52·0	64·4	5·074	20·868	0·214	16
	30·114	29·915	54·4	60·6	48·2	60·0	5·606	16·296	0·541	12
	30·143	29·945	52·4	59·4	45·6	57·5	4·239	11·952	0·120	12
ust	30·131	29·930	55·0	62·5	47·5	57·6	2·822	10·166	0·040	11
mber	30·080	29·878	58·7	66·1	51·2	60·2	3·148	14·045	0·083	12
ber	30·033	29·835	63·5	71·0	55·9	63·3	2·859	8·645	0·210	13
mber	30·012	29·812	66·6	73·8	59·3	66·6	3·209	9·880	0·200	13
mber	29·944	29·747	69·9	77·2	62·4	69·3	2·571	7·804	0·453	13
ly averages	30·066	29·868	63·0	69·7	56·1	65·1	49·852	Extreme 24·490	Extreme 0·040	159

GEOLOGICAL FORMATION.

THE geology of the colony has been ably treated by various learned scientists, and this work has been added to by the late Mr. C. S. Wilkinson, Government Geologist, and by Mr. E. F. Pittman, his successor in that office. To the Rev. W. B. Clarke we are indebted for the first systematic classification of the various sedimentary formations found in New South Wales. The original classification, however, has been somewhat modified, and the rocks, as they are now known, are classified as follow :—

Cainozoic..	Post Tertiary	Recent. Pleistocene.	
	Tertiary	Pliocene. Eocene.	
Mesozoic ...	Cretaceous ...	Upper Cretaceous—Desert Sandstone. Lower Cretaceous—Rolling Downs Formation.	
	Triassic	Hawkesbury Series	Wianamatta Shales. Hawkesbury Sandstones Narrabeen Shales.
Palæozoic..	Permo-Carboniferous	Upper Coal Measures. Middle Coal Measures. Upper Marine Series. Lower Coal Measures. Lower Marine Series.	
	Carboniferous.		
	Devonian.		
	Upper Silurian.		

PALÆOZOIC FORMATION.

This formation extends throughout almost the whole eastern portion of the colony, the rocks of the upper Silurian age principally occurring on the western watershed of the main Dividing Range, in the country where the Murrumbidgee, Lachlan, and Abercrombie Rivers rise. They appear on the eastern watershed, along part of the coast near Bateman's Bay, and, striking inland, are found in the basin of the Clyde, and the upper valley of the Shoalhaven.

The *Upper Silurian* rocks extend as far north as Mudgee, where they are overlaid by the Permo-Carboniferous strata of the Hunter Valley, and by the belt of volcanic rocks extending along the Liverpool Range. They reappear further north, in the upper valley of the Macleay River, on the east slope, and in the basin of the Namoi, on the west of the Dividing Range. The Silurian rocks consist of sandstone, slate, and limestone, and exhibit evidence of metamorphism, particularly in the country around Bathurst and Hill End. Limestone beds, of considerable extent, are scattered throughout this formation. These are chiefly composed of crinoids and corals which outcrop prominently in the Wellington District, near Molong and Gulgong, at Tuena, and also in the Murrumbidgee District. In the limestone formations are found magnificent caves, such as the Wellington, Wombeyan, Fish River or Jenolan Caves, Bungonia and Abercrombie, the fame of which has spread even beyond the confines of Australia. The caves at Yarrangobilly, in the Kiandra district, are also said to be very attractive.

The *Devonian* rocks are well seen at Mount Lambie, near Rydal, where the late Mr. C. S. Wilkinson measured a section of strata showing a thickness of not less than 10,000 feet. They also occur in the southern and western districts.

The *Carboniferous* rocks.—The coal-bearing rocks are of three distinct systems, the first of which belongs in all probability to the lower carboniferous age. Two seams, the one 5 feet and the other 7 feet in thickness, occur near the top of this system, but the coal in both cases is full of bands, and otherwise too dirty to be of any economic value.

The *Permo-Carboniferous* rocks.—The second system, known as the Permo-Carboniferous, contains many seams of workable coal, which have been developed in both New South Wales and Queensland. Productive coal measures occur in this system in three horizons in New South Wales: the first and lowest of these is the Greta (Stony Creek) series, the second the Tomago (East Maitland) series, and the last and uppermost the Newcastle series. The total thickness of this system and its associated strata at Newcastle is about 11,000 feet, containing a total thickness of about 150 feet of coal, without taking into account seams of less than 3 feet in thickness. Recent borings at Cremorne, a point on the northern margin of Sydney Harbour, as well as at Holt-Sutherland and Liverpool, confirmed the anticipations of Mr. C. S. Wilkinson as to the continuous extension of at least the upper or Newcastle series of coal-seams between Newcastle on the north and Bulli on the south.

MESOZOIC FORMATION.

The *Triassic* rocks.—The third system comprises the Clarence Carboniferous basin, and is of Mesozoic age. Professor David estimates the length of that part of it which contains the principal seams to be about 65 miles from east to west, while its width is about 37 miles from north to south. The most remarkable beds in the Clarence basin are a series of massive whitish sandstones, which were considered by Mr. C. S. Wilkinson to be the equivalents of the Hawkesbury sandstones, and were named by him "The Middle Clarence Series," occupying as they do an intermediate position between the upper and lower coal-beds of the basin. None of the seams in this coal-field has as yet been proved to be of commercial value. Professor David estimates the top seam to contain 1 foot 9 inches, out of a total thickness of 5 feet 7½ inches, of coal fit for ordinary consumption, while the second and third seams have not yet been sufficiently tested to allow of a definite opinion being formed of their value. It is probable, however, that even if the seams prove to be of insufficient thickness and purity to yield coal fit for purposes of export, they may supply sufficient coal of fair quality for local requirements, especially if the coal be washed in suitable washing machines, such as Lührig's.

The Hawkesbury and Wianamatta series, which overlay the Carboniferous formation of that part of the country through which the Hawkesbury and its principal tributaries flow, belong to the Mesozoic period. It is in this formation that the wonderful gorges of the Blue Mountains, and the beautiful harbours of Port Jackson, Port Hacking, and Broken Bay, occur. The rocks consist of grey, purple, and chocolate coloured shales, and yellowish-grey sandstones, and the maximum thickness of the strata is estimated at 1,700 feet.

The Wianamatta series extends round Sydney, and covers a space in the shape of an irregular triangle, the angular points of which rest at Picton on the south, Richmond on the North, and Sydney on the east. The beds are composed of fine sedimentary deposits of argillaceous shales, and are of comparatively little thickness. They appear to have been deposited in hollows worn by denudation out of the sandstone on which they directly rest. Neither the Narrabeen shales, nor the Hawkesbury sandstones, nor the Wianamatta shales contain any remarkable seams of coal. All three formations are intersected by dykes of dolerite, which have also intruded the underlying Carboniferous formations, and where they have come in contact with the coal-seams, the latter have been converted into coke, sometimes to a thickness of 3 feet or more.

The *Cretaceous* formations occupy the north-western part of the colony extending from the Darling westward towards the north-west corner. Water-bearing strata have been reached at depths varying from 89 feet to 2,070 feet, and large quantities of water have been obtained. The existence of subterranean water throughout this extensive region has been practically demonstrated, and it remains for the settlers to avail themselves of the stores with which nature has charged her reservoirs in the ages that have long since been counted out. The steps already taken in regard to utilising the artesian water are described below.

CAINOZOIC FORMATION.

this formation belongs the greater portion of the central and western
cts of the colony. It therefore embraces the valleys of the great
rn rivers and their chief tributaries. The formation is, however,
ected by a broad broken belt, chiefly of Silurian rocks, extending
its centre, from the Bogan River towards the Great Barrier Range
e further side of the Darling. Large patches of Devonian formation
so met with in the same region. Making these deductions, the
ry formation covers more than one-third of the whole colony. The
lluvial plains were formed during the Pliocene and Post-Pliocene
ls. The alluvial deposits are of variable thickness, sometimes
w ; but in the great plains, between the main rivers which intersect
untry, the deposits are of very great depth.

IGNEOUS AND METAMORPHIC FORMATION.

area occupied by this formation comprises one-eighth of the
—the principal rocks belonging to the series consisting of varieties
nite, quartz, porphyry and felstone, diorite, basalt, and serpentine.
ranite formation occurs for the most part in the northern and
ern masses of the Great Dividing Range, but is found outcropping
ghout the Silurian deposits, which cover so large a part of the centre
colony. Diorite and basalt occur principally in the country between
acleay and Manning Rivers, and on both slopes of the Liverpool
e, between the upper waters of the Namoi and Macleay. Serpentine
nd scattered in different parts of the colony, chiefly at Gundagai,
ra, Lucknow, Nundle, Yulgilbar on the Clarence River, and Port
uarie. The granites, quartz, porphyries and felstones have been
nised as belonging to the Palæozoic age, whilst the volcanic rocks,
s, and others are chiefly contemporaneous with the tertiary series.
iama there is an immense development of interbedded basalt lavas
uffs in the Permo-Carboniferous rocks.

ARTESIAN WATER.

fore actual boring operations proved that the belief was well
led, it had long been scientifically demonstrated that there was
probability of water being obtained in the Cretaceous formation
underlies the whole of the north-west portion of the colony—
ion favoured with only a sparse rainfall ; and from an examina-
which has lately been made of this formation occurring in the
rn and north-western portions of the colony, it is considered
ble that the artesian water-bearing basin will be found to extend
further southwards than it was previously supposed to do. It
et be found to extend approximately along the course of the lower
ng, and possibly below the Tertiary rocks of the north-western
n of Victoria, and part of South Australia.

It was not until 1879 that artesian boring was attempted in New South Wales. In that year operations were begun at Kallara, a station lying between Bourke and Wilcannia. The supply was tapped at a depth of 140 feet, and the effluent water rose to a height of 26 feet. In 1884 the Department of Mines put down its first bore in search of water, a small supply of which was reached at 89 feet. Since then much work has been done, both by the Government and by private enterprise. Recently an important discovery was made by the Government Geologist of the colony, namely, that artesian water is obtainable in other than Cretaceous rocks. This is borne out by palæontological evidence, and some of the most successful bores, such as those at Coonamble, Moree, Gil Gil (Moree to Boggabilla), and Euroka (Walgett to Coonamble) have pierced rocks of Triassic age, corresponding with the Ipswich coal-measures.

On the 31st October, 1897, there were 61 completed Government bores, while 12 were in progress, and contracts had been let for others. Of those completed, there are 38 flowing, yielding a supply of approximately 26,000,000 gallons per diem, and 17 from which a supply of 750,000 gallons per diem can be pumped; but in the remaining 6 bores the search for water suitable for drinking purposes has been unsuccessful. The deepest bore sunk in the colony is that at Dolgelly, on the road from Moree to Boggabilla, which is down 4,086 feet, yielding a flow of 1,500,000 gallons per diem. The next in depth is the Bancanya bore, on Silverton-Cobham Road, being 3,510 feet deep. The largest flow has been obtained at the Euroka bore, on the road from Walgett to Coonamble, which yields approximately 4,000,000 gallons per diem.

The water from the Government bores, over and above that required for travelling stock and domestic use, is being used for irrigation purposes, and much has already been accomplished in this direction. At the Pera bore, 8 miles from Bourke, on the Wanaaring Road, an area of 57 acres has been reserved for an experimental farm. The remainder of the land has been cut up into 20-acre blocks, all but two of which which have been let under the homestead selection provisions of the Crown Lands Act of 1895. Good results have attended the work of irrigation at this place, as well as at other bores, especially those on the Bourke to Barringun Road. Farms will shortly be open at Moree bore, Woollabra bore (Moree to Narrabri), Tenandra bore (Warren to Coonamble), and Euroka bore (Walgett to Coonamble), where the land is being surveyed for special lease in small areas, to which water will be delivered from the bores by the Government. At each place a certain area will be reserved for experimental cultivation. Further reference to this subject will be found in the chapter on "Agricultural Production."

There are, in addition to the Government bores, 107 completed private bores, which yield an aggregate supply of 25,000,000 gallons per diem.

FAUNA.

Mammals.

At the present time, mammals are represented in Australia by the Monotremes, the Marsupials, a dog, and many rats and bats, as well as by the marine aquatic animals—whales, seals, and the dugong.

The Monotremes, which are confined to Australia, Tasmania, and New Guinea, comprise the duck-billed platypus (*Ornithorhynchus anatinus*) and the native porcupines (*Echidna* and *Proechidna*). The platypus—the "mallangong" and "tambrit" of the aboriginals—inhabits Australia and Tasmania, and is one of the most interesting animals known. The male is much larger than the female, and may be distinguished by the horny spur on the hind foot being of very large size. The total length of the male is 24 inches, while the female seldom exceeds 19 inches. In colour, the platypus is of a deep brown above, and of a greyish or yellowish white below, the fur being close and velvety. The muzzle is produced into a broad, flattened beak, which is covered during life with a delicate and sensitive skin; the tail is well developed, broad and flattened; and the feet are modified into swimming organs, the five toes being extensively webbed; while the teeth, which are unlike those of any other existing mammal, are shed early in life, their place being taken by a series of horny plates. As a mammal, the platypus is chiefly interesting because of the fact that it lays eggs. These are white in appearance; usually two in number, although three and even four are sometimes laid at one time; and in texture they are similar to the eggs produced by reptiles. When hatched, the naked and helpless young are nourished on their mother's milk, as in the case of all mammals. The nest of the platypus is formed at the end of a burrow, which is reached by two openings—one above and the other below the surface of the water.

The Echidnas are also egg-laying, but differ from the platypus in that the females carry their two eggs in a pouch, where they are hatched by the warmth of the body. The common echidna (*E. aculeata*) is characterised by having the fur thickly mingled with spines, which sometimes conceal the hair beneath. The muzzle is produced into a long cylindrical beak, which during no period is known to possess teeth; it is admirably adapted to protect and assist the worm-like extensile tongue. The feet are stout, unwebbed, and furnished with five powerful claws. The tail is short and conical. Several species have been described, but modern zoologists are inclined to consider them as geographical varieties. Regarded thus, the echidna ranges from south-east New Guinea, throughout Australia, to Tasmania. Those echidnas which are generically named *Proechidna* are distinguished by possessing only three toes on each foot, and by having a much curved beak of great length. Two species are known, both of which are confined to New Guinea.

The marsupials, to which class belong the great majority of Australian mammals, are distinguished by the young being produced in an extremely imperfect state of development, and nurtured frequently in an abdominal pouch for a lengthy period. In bush districts it is a common belief that the young are produced on the teat; this, however, is quite erroneous, for they are born in the usual manner and afterwards applied to the teat by the mother. Australia is the great home of the marsupials, but they also occur in Tasmania and New Guinea, and have overflown into neighbouring islands. In America marsupials are also found, but there they are represented by a single family—the *Didelphyidæ*. The habits and conditions assumed by the marsupials are very varied. They are divided into seven families, namely, the *Macropodidæ*, *Phalangeridæ*, and *Phascolomyidæ*, constituting the sub-order of Diprotodonts, so named from the fact that the animals included possess only two front teeth in the lower jaw; and the *Peramelidæ*, *Dasyuridæ*, *Notoryctidæ*, and *Didelphyidæ*, constituting the sub-order of Polyprotodonts, distinguished by having six or more such teeth.

1. *Macropodidæ.*—This family includes the kangaroos, wallabys, tree kangaroos, and rat kangaroos. The kangaroos are so well known that they do not require more than a passing notice. They vary in size from the great grey kangaroo (*Macropus giganteus*), as large as a man, to the little musk kangaroo (*Hypsiprymnodon moschatus*), which can easily be concealed in the pocket. Their hind limbs are very long, and progression is chiefly effected by hopping, the long tail meanwhile acting as a balancer. The tree kangaroos of Queensland and New Guinea are among the most notable of the family, climbing tall trees, even to the most slender branches. Less frequently observed upon the ground than the others, their limbs are more equal in length.

2. *Phalangeridæ.*—Under this name are included the Australian opossums, the flying opossums, the flying mouse (one of the smallest marsupials), and the clumsy native bear—all tolerably well-known forms.

3. *Phascolomyidæ.*—The wombats, of which there are three species, are heavily-made, short-limbed animals. They excavate huge burrows in the ground, and feed upon grass and other herbage. They inhabit Australia and Tasmania.

4. *Peramelidæ.*—The bandicoots, found in Australia and New Guinea, are assigned to three genera—*Peragale*, *Perameles*, and *Chœropus*. Members of the first-named are known as rabbit bandicoots, or beilbys; while the second genus includes the true bandicoots, whose form and

habits are sufficiently well known. The pig-footed bandicoot (*Chœropus castanotis*) is generically separated on account of the unique and peculiar structure of the four feet, which have a striking resemblance to those of the pig.

5. *Dasyuridæ.*—The animals included in this family are the marsupial carnivora, so to speak, and are familiar as native cats (*Dasyurus*) and pouched mice (*Phascologale* and *Sminthopsis*). These forms occur in Tasmania, New Guinea, and adjacent islands, as well as in Australia. The most formidable of the group are the Tasmanian tiger or wolf (*Thylacinus cynocephalus*) and the Tasmanian devil (*Sarcophilus ursinus*) which are confined at the present day to the colony indicated.

6. *Notoryctidæ.*—The recent finding of a mole-like animal in Australia is one of the most interesting discoveries of the day. The marsupial mole is in no way connected with the European mole, but nevertheless has acquired many similar habits—affording a valuable lesson in parallelism in development. It is known only from central South Australia.

7. *Didelphyidæ.*—These are the true opossums, and being confined to America, need not be further mentioned here.

Dogs and seals form the carnivora of Australia. The dog family (*Canidæ*) is represented by the dingo, or native dog (*Canis dingo*), called by the aboriginals "worregal"; dingo being only the aboriginal name for the domestic dog introduced by Europeans. The native dog is found in all parts of the Australian mainland, and will inbreed with the domestic dog, crosses being common throughout the settlements. It is questionable whether the dingo is indigenous, or whether it has been introduced from abroad. It was undoubtedly acclimatised before the arrival of the first white settlers. The dingo does not bark, its temper is intractable, and it works great havoc among the flocks of the settlers.

The *Rodentia* finds representatives in many species of native rats, the more typical ones of which belong to the genus *Mus*, and the Jerboa-like forms to the genus *Conilurus*. The familiar water rat is known as *Hydromys chrysogaster*.

The *Chiroptera* are well in evidence, and include the flying-foxes and many insectivorous bats. The common flying-fox (*Pteropus poliocephalus*) is met with in the brush lands, but it haunts the neighbourhood of towns during the fruit season, making great depredations among the orchards and gardens.

Of seals (*Pinnipedia*), the species found off the coast of New South Wales are the Australian sea bear or eared seal (*Otaria forsteri*), and the sea leopard (*Ogmorhinus leptonyx*), the former being a sociable and the latter a solitary species.

Among other mammals belonging to New South Wales, or found contiguous to its coasts, are representatives of the orders Cetacea and Sirenia, the first comprising whales, porpoises, and dolphins; and the second, manatees and dugongs. Whales have always haunted the coasts of the colony, and formerly a brisk trade was carried on in oil and whalebone; Twofold Bay, about 208 miles south of Sydney, being the chief seat of the industry. Among the whalebone-whales which inhabit our waters may be mentioned the Southern right whale (*Balæna australis*), the pigmy whale (*Neobalæna marginata*), and the Sulphur-bottom (*Balænoptera huttoni*); while of sperm whales there are the gigantic *Physeter macrocephalus*, *Mesoplodon layardi*, and *Kogia breviceps*. The dolphin of our waters, commonly called "porpoise," is not distinguishable from the common and cosmopolitan form, *Delphinus delphis*. The order Sirenia is represented by the dugong (*Halicore dugong*), but it is now seldom seen south of Moreton Bay. Its flesh is highly valued by the natives, and its oil is a good substitute for cod-liver oil.

Besides those already mentioned, geological research has brought to light the remains of numerous extinct species of gigantic mammalia. The largest fossil marsupial, the *Diprotodon australis*, an herbivorous monster, was as large as the rhinoceros, and related to the native bear or the wombat. Its bones have been found distributed generally throughout eastern and southern Australia. Fossil remains of another large marsupial, the *Nototherium*, named by the late W. S. Macleay the *Zygomaturus*, have also been found, as well as of a member of the family of the *Phascolomyidæ*, or wombats, and of a marsupial rodent-like animal, named the *Sceparnodon*. In the bone-breccia of the Wellington Valley Caves were found the bones of gigantic kangaroos (*Macropus titan*), which have been placed in the genera *Palorchestes*, *Procoptodon*, *Protemnodon*, and *Sthenurus*; besides those of the *Thylacoleo carnifex* and the true *Thylacinus*. The Wellington Valley Caves have also yielded fossil remains of a "porcupine" (*Echidna*) and a platypus (*Ornithorhynchus*), belonging to the order Monotremata.

REPTILES AND BATRACHIANS.

First among the reptiles may be mentioned the snakes. Although there are very many species of both venemous and harmless snakes, there are only about five which are actually harmful. The deadly snakes of the colony are as follow:—

1. The black snake—*Pseudechis porphyriacus.*
2. The brown snake—*Diemēnia textilis.*
3. The tiger or brown-banded snake—*Notechis scutatus.*
4. The superb or copper-headed snake—*Denisonia superba.*
5. The death adder—*Acanthophis antarctica.*

To these should be added several sea snakes not infrequently found on the coast. Nearly all of these are highly venomous.

The largest of the harmless species are true pythons, known as the diamond and carpet snakes (*Python spilotes*). Of tree snakes the commonest is *Dendrophis punctulatus*.

Lizards may be said to swarm. The goanas, of which the *Varanus varius* attains a length of 6 feet or more, are the largest kind. Other familiar forms are the blue-tongued lizards (*Tiliqua scincoides* and *T. nigro-lutea*), the Jew-lizard (*Amphibolurus barbatus*), the water lizard (*Physignathus lesueurii*), and the spiny lizard (*Egernia cunninghami*). The best-known gecko is the rock gecko (*Gymnodactylus platurus*), a harmless, though curious, little creature, much feared by those ignorant of its nature.

The tortoises are semi-aquatic, and belong to the genera *Chelodina* and *Emydura*. Although two species of crocodile frequent the rivers of Queensland, they are fortunately absent on the New South Wales side of the border.

Of Batrachians, there are no newts nor salamanders on the continent, but of frogs there is an immense choice, the tree frogs (*Hyla*) and the swamp frogs (*Limnodynastes*) being the most familiar forms.

Birds.

Few countries can boast of a greater variety of beautiful birds than New South Wales, all the more important orders and families of the class Aves being represented in the fauna of the colony. In the Australian continent and the adjacent islands no less than 770 species of birds have been discovered, some of which are especially interesting, and among these may be mentioned the lyre-bird (*Menura superba*), the satin bower-bird (*Ptilonorhynchus violaceus*), the fawn-breasted bower-bird (*Chlamydodera cerviniventris*), and the tooth-billed bower-builder (*Scenopœus dentirostris*); the mound-building mallee fowl (*Lipoa ocellata*), the mound-building brush-fowl (*Taiegallus lathami*), and the collared plain-wanderer (*Pedionomus torquatus*). Many of the Australian birds, besides being beautifully plumaged, are no mean songsters, and others again are possessed of remarkable powers of mimicry and ventriloquism.

The order Accipitres is well represented in New South Wales, twenty-six out of the twenty-eight species inhabiting Australia being found in the colony. The largest of all our birds of prey is the wedge-tailed eagle (*Aquila audax*). In many parts of the colony this fine bird is included in the list of noxious animals and birds, in consequence of the destruction which it causes amongst lambs, but in the dingo and rabbit infested districts it is protected by land-owners on account of the effectual service which it renders in keeping these pests in check. Another useful bird is the black-breasted kite (*Gypoictinia melanosternon*), frequenting the inland districts. As many as thirty rabbit skulls have been found under a nest of a pair of these birds containing young. The white-bellied sea eagle (*Haliætus leucogaster*) and the white-headed osprey (*Pandion leucocephalus*) frequent the bays and inlets of our coast, while several species of hawks, eagles, harriers, kites, and a kestrel are found inland. The sub-order Striges, or nocturnal birds of prey, is represented by eight species. Chief among these are the great owl of the brushes (*Athene strenua*) and the sooty owl (*Strix tenebricosa*), found in the coastal districts.

The order Psittaci is especially numerous, and includes many beautiful species of cockatoos, parrots, parrakeets, and lorikeets. Among the larger species are the white and black cockatoos, yellow and pink crested; and the grey pink-crested gallah. The parrot family is also especially strong, some of the most notable members being the love-birds (*Melopsittacus undulatus*), the green parrot, and many kinds of lories, all gorgeously plumaged.

The order Picariæ, which embraces swifts, kingfishers, cuckoos, etc., includes one very remarkable specimen, viz., the great kingfisher, goburra, or laughing-jackass, so called from its extraordinary mocking laugh. It is one of the most valuable of birds, being the determined enemy and persistent destroyer of small reptiles. The mopoke, or boobook owl (*Podargus strigoides*), is also a characteristic member of this order, which includes the owlet night-jar, the dollar bird, and several species of kingfishers.

The order Passeres comprises swallows, crows, rifle-birds, honey-eaters, finches, pittas, etc. This is the largest order of birds in Australia; and the finest, if not the most beautiful, family is the *Menuridæ*. New South Wales possesses a handsome species of this remarkable Australian bird, called from the shape of its tail the lyre-bird (*Menura superba*). It is to be found chiefly in the fern gullies and brush-forests of the colony. To the order Passeres belong also the crow-shrikes of the genera *Cracticus* and *Gymnorhina*, the beautifully-plumaged regent birds (*Sericulus melinus*), whip-birds (*Psophodes crepitans*), swallows, martins, diamond birds, fly-catchers, fan-tails, wedge-bills, thick-heads, robins—red-capped, red-breasted, and yellow; "superb warblers," emu-wrens, meadow pipits, bristle-birds, grass, crimson, and painted finches; pittas, ground-thrushes, bower-builders, cat-birds, rock-warblers, and honey-eaters (*Meliphagidæ*). Worthy of special notice in this large order of birds are the bower-builders. Three species of these extraordinary and interesting birds are found in the colony. The brilliantly-plumaged regent-bird (*Sericulus melinus*), which forms the most primitive bower or playing-place, frequents the dense coastal brushes of the northern rivers; the satin bower-bird (*Ptilonorhynchus violaceus*), is found in the scrubs and mountain-ranges of eastern New South Wales; and the spotted bower-bird (*Chlamydodera maculata*), inhabits the grassy plains and lightly-timbered country inland. Scattered about the entrances to the bowers of the last two species are pieces of bleached bone, land shells, bright feathers, bits of looking-glass, coins, or any bright object which the birds may pick up in the bush.

The order Columbæ is largely represented in the colony, especially in the great primæval forests of the coast districts. In the cedar brushes of the Liverpool Range white-headed fruit pigeons are very numerous; and in the brush-forests of the Clarence, the Richmond, the Macleay, and Illawarra, the top-knot and large-tailed pigeons, and the wonga-wonga (*Leucosarcia picata*), so prized for its large size and the whiteness and delicacy of its flesh, are very plentiful. The bronze-winged pigeon (*Phaps chalcoptera*), is common to almost all parts of the colony. Several species of these birds are remarkable for their beautiful plumage, their size, and the excellence of their flesh. One of the finest species, the partridge bronze-winged pigeon (*Geophaps scripta*), is found almost exclusively in the plains of the interior. Doves are also numerous, and most of the species are extremely delicate and beautiful. The little turtle-dove of the inland districts (*Geopelia cuneata*) is the prettiest specimen of this family.

The game birds found in the colony belong to the orders Gallinæ and Hemipodii. The former is represented by the wattled talegallus (*Talegallus lathami*), found in the northern coastal scrubs and contiguous mountain ranges, and the mallee fowl (*Lipoa ocellata*), inhabiting the inland districts. Both of these birds belong to the family *Megapodiidæ*, or mound-raising birds, and deposit their eggs in a scraped-up heap of leaves, decaying vegetable matter, and sand. To this order also belong the stubble quail (*Coturnix pectoralis*), the swamp quail (*Synoicus australis*), and the king quail (*Excalfatoria lineata*), the last-named species being probably the smallest game bird in the world. The order Hemipodii, which by some authorities is included in the Gallinæ, is represented by four species of turnix, commonly known as quail, and the remarkable collared plain wanderer (*Pedionomus torquatus*).

The order Grallatores includes many genera, and to it belongs the Australian bustard, commonly known as the Plain turkey (*Eupodotis australis*), as well as the waders, such as stilts, water-crakes, ibises, dotterels, gallinules, spoon-bills, herons, bitterns, and many others.

Among water-birds, Natatores, are enormous numbers of wild-fowl of all descriptions, ducks, geese, grebes, as well as black swans. The latter is essentially an Australian bird, and may be met with in all parts of the continent. The order embraces, also, the large and very varied species of sea-birds frequenting the coast, such, for instance, as albatrosses, gulls, petrels, and cormorants.

The order Struthiones, or running birds, is represented by the emu (*Dromaius novæ-hollandiæ*), the largest bird in this part of the globe, and one, unfortunately, rapidly being exterminated.

Besides the birds mentioned above, there are others of perhaps less note, but numerous, and frequently very beautiful. They are all admirably described and depicted in the celebrated work of Mr. Gould, which occupies a high rank amongst the scientific publications of the century.

FISHES.

According to the late Rev. J. E. Tenison-Woods, S.J., no less than sixty different families of fishes, comprising 348 species, frequent the waters of New South Wales. These are enumerated in the subjoined table:—

Name of family.	No. of species.	Name of family.	No. of species.
Percidæ	50	Ophiocephalidæ	1
Squamipinnes	4	Trachypteridæ	1
Nandidæ	2	Pomæcentridæ	4
Mullidæ	3	Labridæ	18
Sparidæ	14	Gadopsidæ	1
Cirrhitidæ	6	Gadidæ	4
Scorpænidæ	11	Pleuronectidæ	9
Teuthididæ	2	Siluriidæ	5
Berycidæ	3	Scopelidæ	6
Kurtidæ	2	Salmonidæ	1
Polynemidæ	2	Galaxiidæ	7
Sciænidæ	2	Scombresocidæ	6
Xiphiidæ	1	Clupeidæ	12
Trichiuridæ	1	Chirocentridæ	1
Acronuridæ	1	Symbrachidæ	1
Carangidæ	15	Murænidæ	11
Cyttidæ	1	Syngnathidæ	6
Coryphænidæ	2	Sclerodermi	21
Scombridæ	10	Gymnodontes	12
Trachinidæ	5	Carcharidæ	8
Batrachidæ	1	Lamnidæ	1
Pediculati	4	Scyllidæ	3
Cottidæ	7	Cestraciontidæ	2
Cataphracti	1	Spinacidæ	1
Gobiidæ	15	Rhinidæ	1
Blenniidæ	17	Pristiophoridæ	1
Sphyrænidæ	3	Rhinobatidæ	2
Atherinidæ	4	Trygonidæ	3
Mugilidæ	7	Torpedinidæ	1
Fistularidæ	1	Raiidæ	1

The edible fishes comprise 105 different species; amongst the best known may be mentioned:

The schnapper (*Pagrus unicolor*), the most valuable of all Australian fishes, is found along the whole extent of the coast, and is very abundant. It is a deep-water fish, found generally near rocky points or reefs running out into the sea. The schnappers "school," as it is termed, during the summer months, and are then most plentiful. The young fish, known as red bream, frequents the harbours and estuaries of the coast, but is never found in shallow water. The schnapper is caught by the hook, which it takes freely, as it will attack almost any bait. It sometimes attains a very large size, weighing as much as 30 lb. The fish cures well, and is said to be equal to the finest cod, and is in every respect superior to ling.

The nannigai is a deep-water fish, caught with the hook, and ranks high in public estimation as an edible fish. The supply is not large, as the fish is not specially sought after, being chiefly obtained by fishermen in search of schnapper. The nannigai is scientifically interesting as one of the oldest forms of bony-fishes now surviving.

The black rock-cod is considered one of the best of Australian fish, and is also a deep-water fish, never captured by the net. It grows to a great size, specimens from 35 lb. to 40 lb. being not uncommon, whilst fish weighing over 100 lb. are met with in the markets. It is found more abundantly in the warmer waters of the north of the colony, where, as a rule, it attains larger proportions than to the southward of Sydney. In the vicinity of the islands lying off the New South Wales coast—the Seal Rocks, Solitaries, Elizabeth Reef, and Lord Howe Island—the black rock-cod may be taken in almost any quantity, and of the largest size.

A fish of great size and beauty, known in Australia as the salmon, is found off the coast in prodigious quantities. It has no affinity whatever to the true salmon, and is inferior as an article of food.

The flat-head, a fine fish, of which there are several varieties, is captured both by the hook and net. It is of excellent quality, and ranks high amongst New South Wales fishes.

There are four species of whiting found in these waters. The common sand-whiting and the trumpeter-whiting are both very abundant, but the other two species are more rare. The sand-whiting is perhaps the fish most in demand in the metropolitan markets, where it is to be obtained all the year round.

The jew-fish is the largest edible fish found on the New South Wales coast, attaining sometimes a length of 5 feet. It is found at all seasons, but most frequently during summer. The teraglin is of the same family as the jew-fish, though it does not reach an equal size. The air bladder is large and of excellent quality, being of great value for the making of isinglass.

The mackerel is obtained in enormous quantities off the coast, and sometimes even in the harbours. It is a good fish when eaten fresh, but it decomposes rapidly.

The family of Mugilidæ, or mullets, is well represented in Australian waters. The sea mullet is a large fish, often attaining a length of 2 feet, and a weight of 8 lb. It is regarded by some authorities as unsurpassed in richness and delicacy of flavour by any fish in the world; and it visits these shores in countless numbers in the season when it is in the best condition. When young the fish keeps entirely to the creeks and lakes, where it increases in size very rapidly, but when full-grown it seeks the open waters.

There are four species of gar-fish found on the New South Wales coast. The Sydney gar-fish is very abundant, especially towards the end of summer, making its appearance in shoals, sometimes of enormous size. The river gar-fish is even of better quality than the last mentioned, but it is not so plentiful as formerly. The other species are seldom met with. There are numerous other varieties of fishes found in the waters of New South Wales, many of which are very valuable as articles of food, but for the most part they are neither so numerous nor so easily obtained as those referred to.

Destructive fishes are by no means rare, the shark family being largely represented, not only in the deep sea, off the coast, but even in the harbours. The shark is not, however, absolutely valueless. The fins find a ready sale in the Chinese markets; the skin also has some commercial value; while from the liver is extracted a large quantity of valuable oil, equal in every respect to cod-liver oil.

Several varieties of fishes which have long disappeared from other parts of the world are still represented in New South Wales. Amongst these is the cestracion, or Port Jackson shark, whose teeth resemble those of the fossil acrodis found in the mesozoic deposits.

During the season the Australian waters teem with herrings, the season of immigration being the last six months of the year. There are four species, but two only are of commercial importance, though a more accurate knowledge of the composition of the shoals might lead to the discovery of other valuable species. The most valuable of this family of fishes is the pilchard. The Australian pilchard in a fresh state is equal in excellence to the Atlantic pilchard, and there is every reason to suppose that it can be obtained in quantities sufficient to enable competition to be entered into with the bloater and sardine of Europe. The maray also pass northward at the same time as the pilchard, and in like prodigious numbers, but both species keep well away from the shore.

The rivers of the colony produce some most excellent specimens of fresh-water fish. The Murray, Murrumbidgee, Lachlan, and Darling are the most plentifully stocked, the Murray cod (*Oligorus Mitchelli*), being perhaps the most highly esteemed of their fishes. Another fish of the same species is the *Oligorus Macquariensis*, which is to be met with in the upper branches of the Clarence. Specimens of both these varieties of fresh-water cod have been found weighing as much as 100 lb. The silver perch, and several kinds of the Percidæ family, so highly prized for their delicacy, are plentiful in the rivers. In the Richmond River the cat-fish (*Copidoglanis Tandanus*) is very common, whilst herrings and mullet are caught in almost all the eastern rivers of the colony.

Little systematic attempt has yet been made to acclimatise European varieties of edible fishes, although success would most probably attend any efforts in this direction, every difficulty having been overcome in Victoria, New Zealand, and Tasmania. Large quantities of trout ova have been distributed in various localities, including the Prospect Reservoir.

MOLLUSCA.

The first of local shell-fish in economic interest is the oyster. Two kinds occur on the coast of New South Wales—a large one, considered to be a form of the English oyster (*Ostrea edulis*), and popularly known as the mud oyster; and a smaller sort, the rock oyster (*O. glomerata*).

The mud oyster reaches in Sydney the northern limit of its range, and fails to attain here to the luxuriant growth which it exhibits in cooler climates. The prolific beds of Stewart's Island, New Zealand, furnish a large proportion of the supply of mud oysters for the Australian markets. This oyster prefers deep and muddy places, where it may attain a length of 8 inches. Nowhere is it now abundant, and, indeed, it seems to be approaching extinction. The blacks formerly feasted upon it, but connoisseurs of the superior race disparage it as large and coarse.

Unlike the mud oyster, the rock oyster is well suited to cultivation. In Southern Queensland, favoured alike by more congenial climate, extensive tracts of shoal and sheltered water, and appropriate legislation, the cultivation of this species has been most successful. The beds in Moreton Bay supply not only the local demand, but also the requirements of the southern capitals. Though falling short of the perfection reached by the cultivation of the Bay of Biscay and the New York coast, the management of the Queensland oyster-beds excels that of any other Australian fishery. When accurate details of the mode of breeding of the rock oyster shall have been found by exact scientific inquiry, a further impetus will be given to this flourishing industry. At present all that is known is that in its habits the Australian rock oyster differs altogether from the English and American kinds. Incidentally, it may be remarked that the English oyster cannot be consumed in May, June, July, and August, but the Pacific oyster is in season all the year round. From the chapter on "Fisheries" it will be seen that large quantities of oysters are imported into the colony every year, and it is evident, therefore, that the local market will afford ample support to the cultivators of the bays and deltas of northern New South Wales. The obstacles to success are floods and shifting sandbanks, and the depredations of boring worms and whelks; while among the advantages of this lucrative occupation are the quickness of returns and the smallness of capital required.

Quantities of spat are thrown off at various times, but especially heavy falls occur in the spring, after which the rocks between tide-marks may be literally plastered with young shells of the size of a shilling. The great majority of these perish; those surviving reach maturity in about twelve months, and probably increase in size for two or three years. When adult, their length is about 3 inches. Typically, they have sharply-waved, black-purple edges. Form and colour, however, are so altered by environment that specimens from different situations have been given different names. That they are really one kin however, proved by taking a young purple and crumple-edged from a position on rocks washed by waves, and placing it on a zos flat in calm water. Here it developes a thin, white, smooth large shell; so that one shell may show one form at one end another at the other, the line of junction marking the period of tr ference.

No shell-fish other than oysters are regularly consumed in New S Wales, the Australian inheriting and accentuating the British dist for such small game. Occasionally, however, there are exposed for at the Sydney fish market the whelk (*Potamides ebeninum*) and cockle (*Arca trapezia*), the former being cooked, and the latter e either cooked or raw. Both the whelk and the cockle are used as but neither is at all like its English namesake. Probably their us food is restricted to the Greek and Italian element of the Syd population. The mutton fish, or "abalone" of Californian mar (*Haliotis naevosa*), is consumed by the Chinese, who, it is said, collect it for export; but the ordinary citizen is unacquainted wit The "ugarie," commonly miscalled by Sydney anglers by the M name of "pipi" (*Donax deltoides*), is frequently used for bait, ra for food. As an article of diet, various squid (*Sepia cultrata*, *S. me* &c.) are left to the foreign and coloured of the local sea-faring popula but as bait their good qualities are better appreciated. The beach New South Wales are not rich in ornamental shells, but the exqu and rare "king-cockle" (*Trigonia lamarckii*) from Sydney Harbour valued gem, and, as a brooch, may often be seen worn.

Of pests in this division of natural history, the local species of worm, the "cobra" (*Teredo saulii*), has wrought great damage amo shipping, wharfs, and piers. It is a far larger and more destruc species than any occurring in European waters. In gardens, common European snail, the "limaçon" dear to the French epicure (*H* *aspersa*), has now obtained a firm footing, and ravages flowers vegetables alike.

CRUSTACEA.

The crustacean fauna of New South Wales is extremely rich species, but only about twelve kinds are used as an article of diet. these, six are fairly common and highly esteemed as food, and ar follow :—

Common Swimming Crab (*Neptunus pelagicus*, Linn.).—This is commonest crab offered for sale in Sydney. It often attains a we of 2 or 3 lb., and is always in great demand, finding a ready sal prices varying from 3d. to 9d. each. The principal supplies are obta in Sydney Harbour, and from Botany Bay. The shell or carapac this species is very broad, and ornamented on the front edge twenty-four spines. Six of these are situated between the eyes, and nine on each side, the last being much larger than the others.

Swimming Crab (*Goniosoma crucifera*, Fabr.).—This species is not common, although it may be seen exposed for sale in large numbers during some months of the year. It attains to a size slightly exceeding the preceding species. The claws are shorter, stouter, and the spines on the arms large, compressed, and tooth-like. The front edge of the shell is armed with twenty spines—six on each side and eight between the eyes. The colour is "reddish, with yellowish spots and bands, of which the middle one represents a cross."

Mangrove Crab (*Scylla serrata*, Forsk.).—This is the largest and most valuable crab obtained on our coast. Unfortunately, it is not common; still a fairly large number have been exposed for sale during the last few years. The price ranges from 1s. to 2s. 6d. each. The main supplies are obtained from Botany Bay. In this species the claws are very large; the front edge of the shell is armed with twenty-four nearly equal spines; and the back of the shell is convex and smooth. The colour of the mangrove crab when alive is olive-brown. It inhabits deep holes in the mud, and comes out at low tide to feed.

Sydney Craw-fish (*Palinurus Hügelii*, Heller).—The craw-fish, or lobster (as it is usually called), is very abundant along the whole coast-line, but the chief supplies are obtained at Port Stephens. It is by far the largest and most valuable of all the crustaceans of New South Wales, often attaining to 8 or 10 lb. in weight. Between four and five thousand dozen are sold annually in the wholesale markets at prices varying from 1s. to 20s. per dozen.

A second species is often seen offered for sale—the "Southern Craw-fish" (*Palinurus Lelandii*), which is equal to the Sydney craw-fish as an article of food, although usually much smaller. It may readily be distinguished by the highly-sculptured segments of the abdomen, and by the numerous hairs surrounding the bases of the spines.

River Cray-fish (*Astacopsis serratus*, Shaw).—The cray-fish is seldom offered for sale in Sydney, but it is much used as food along the banks of the inland rivers. These crustaceans often attain to a foot or more in length, and are highly prized in the winter season, when they are in their best condition.

Common or Sand Prawn (*Penaeus canaliculatus*, Olivier).—The common prawn is obtained in large quantities during the greater part of the year, but in midwinter there is at times a falling-off in the supply, and prices rise accordingly. In addition to the demand for consumption as food, this prawn is much used as bait, and frequently fetches very high prices in times of scarcity. Large specimens often reach 8 or 9 inches in length. The principal supplies are obtained from Sydney Harbour, Botany, and Cape Hawke. The species may be recognised by the deep grooves which extend along each side of the beak or rostrum to the hinder margin of the carapace, and by the rostrum, which is armed above with ten or twelve spines and with one below.

Tiger Prawn (*Penaeus Monodon*, Fabr.).—The tiger prawn is a species which appears to frequent the coast at irregular intervals. Occasionally it is captured in abundance in Sydney Harbour and at Botany. This species may be readily identified by the numerous dark-coloured cross-bands on the body and by the rostrum or beak, which has six or eight teeth above and three or four below.

River Prawn (*Penaeus Macleayi*, Haswell).—The river prawn is not so large as the two preceding species, seldom exceeding 4 or 5 inches in length. It is, however, very abundant, and appears to be obtainable during the whole of the year. The rostrum of this species has five or six teeth above, but none below—a character which renders it easy to separate it from other forms.

FLORA

THE surface of New South Wales presents a vegetation characterised by little variation in form and colour. The dense foliage and varieties of tints with which the Old World is familiar are alike wanting in Australia, where the dull evergreen leaves alter little with the changes of the seasons. What the flora of the country lacks in picturesqueness it, however, makes up in usefulness. The task of collecting, describing, and classifying the Australian flora has been undertaken by several eminent scientists, amongst whom are Bentham, Mueller, and Hooker. The "Flora Australiensis" of the two first named of these botanists, Hooker's "Flora of Tasmania," the "Census of Australian Plants" and the "Eucalyptographia" of Baron von Mueller, are works of standard value. In dealing, however, with the description of the varied specimens of plant life found in Australia, there remained the task of describing those species whose properties rendered them capable of application to industrial life. To Mr. J. H. Maiden, Director of the Botanic Gardens, the colony is indebted for an excellent classification of those varieties which properly belong to Australian economic botany. The total number of specimens so far described now exceeds 3,000, and it will probably appear to many as a revelation that the country should possess resources so varied and elements of wealth so promising, and at the same time so singularly neglected. The classification is as follows :—

1. Human food and food adjuncts.
2. Forage plants—
   - *a.* Grasses.
   - *b.* Exclusive of grasses, and including plants injurious to stock.
3. Drugs.
4. Gums, resins, and kinos—
   - *a.* Gums.
   - *b.* Resins.
   - *c.* Kinos.
5. Oils—
   - *a.* Volatile or essential.
   - *b.* Expressed or fixed.
6. Perfumes.
7. Dyes.
8. Tans.
9. Timbers.
10. Fibres.
11. Miscellaneous.

It does not come within the scope of this volume to deal at length with a subject so comprehensive as economic botany; it may, however, be pointed out that, beyond the forage plants, some of the timber trees, and a very limited number of oils and tans, few of the resources of the colony disclosed in the foregoing list have received any practical application.

Forests extend over almost the whole area of the colony, excepting portions of the Monaro, the Lachlan, the Murrumbidgee districts, and the trans-Darling region, where extensive treeless plains occur, clothed with salt-bush, scrub, or varieties of natural grasses. The country covered by timber may be divided into three classes—open, brush, and scrub forests.

OPEN FORESTS.

Open forests cover the greatest portion of the surface of the colony, and are found in every formation. The trees met with are chiefly species of Eucalyptus, Angophora, and other genera of the order Myrtaceæ. The prevalence of the eucalypti, and the large extent covered by the forests, give the country a rather monotonous aspect. But the park-like appearance of the open forests, and the beauty of the many flowering shrubs, win admiration in spite of the sameness of the trees; while even the dull, greyish blue of the foliage of the gum-trees, when relieved by the yellow blossoms of the wattle, including the graceful myall, or the beautiful and shapely kurrajong, is not without its attractiveness. The trees are for the most part straight and cylindrical in the trunk, and when full grown their first branch is at a considerable height from the ground. The roots of the eucalyptus lie at no great distance from the surface soil, an adaptation of nature to the peculiar climatic conditions of the country. The finest specimens of most of the timber trees, those yielding the most valuable timber, are found on ridges and hill sides, in places frequently too rough and stony for cultivation. This circumstance is in many ways fortunate for the colony. In the course of settlement, when the rich plains are denuded of their trees, and when scarcity will make timber more appreciated than it is at present, land not adapted for agricultural settlement will still be available for the cultivation of the finest trees. It would be impossible, in the limits of this volume, to enumerate all the trees which are of commercial value; but a list of the best known varieties will not be without interest.

On the river flats immense specimens of flooded gum (*E. rostrata*) and apple-trees (*Angophora subvelutina*) mark the course of the streams. The flooded gum grows to a height of 100 feet, and its wood is most useful for heavy work, and for structures liable to attack by the white ant. The apple-tree has more spread than the majority of indigenous trees, and its wood is strong, heavy, and durable. The distribution of the species is very extensive.

On the ridges and mountain sides other varieties of trees predominate. The box reaches 180 feet in height, with a thickness of 6 feet, and the timber is used chiefly for firewood, for which purpose it has no superior.

The bastard box, supposed to be a cross between the box and the grey gum, is widely distributed over the colony. The quality of the timber varies greatly, according to the place of growth; some varieties are surpassed amongst hardwoods by nothing except ironbark.

Ironbark (*E. leucoxylon* and *E. paniculata*) is a tree of moderate size, usually, when full grown, from 60 to 80 feet in height, though the white ironbark attains a height of 150 feet. The timber is heavy, and renowned for its great strength, fine specimens bearing a tensile strain nearly twice as great as the best oak. The timber is used most extensively for wharfs and bridges, as also for housework. Ironbark is very widely distributed, and frequently grows to perfection on the poorest soil. The ironbark and box are slow-growing trees as compared with many other varieties of eucalyptus, such as the blue gum, the latter attaining a great height in a very few years.

The blue gum (*E. globulus*), one of the finest of the eucalyptus tribe, is only met with in portions of the southern table-land, but the blue gum (*E. goniocalyx*), also called flooded gum, grows extensively in the coastal districts. It attains a good height, and is rather thicker in the trunk than most varieties of gum-trees, sometimes reaching 7 feet in diameter. The timber is greatly in demand owing to its comparative lightness, and is easily worked, being used for all purposes to which hardwood is applied.

The spotted gum (*E. maculata*) grows in all the coast districts, and in some portions of the interior, generally where the soil is poor. This is one of the handsomest of the forest trees, and attains a height of 100 to 150 feet. The quality of the wood varies greatly, according to the habitat and the character of the soil; when good, it is considered specially adapted for ship-building.

Stringybark (*E. eugenioides*), so called from its peculiar fibrous bark, grows chiefly on the northern table-lands. It is a large tree, and its wood is of great and general utility. The bark is extensively used for roofing, and forms a very useful paper-making material.

The messmate (*E. obliqua*), also called stringybark, is one of the largest of Australian trees, being frequently met with more than 250 feet in height. It grows in the south-eastern portion of the colony. The bark is used for roofing, being similar in character to that of the tree just described; it would also form an excellent paper-making material.

The blood-wood (*E. corymbosa*) is a large tree, growing in the coastal districts of the colony. The timber is used chiefly for fencing purposes, and for railway sleepers.

The grey gum (*E. tereticornis*) grows to a height of 150 feet, and is extensively distributed over the whole of the coastal districts. It yields excellent timber, hardly inferior to ironbark. There are several varieties of this tree, some of which produce wood of remarkable beauty, and of great durability.

The tallow-wood (*E. microcorys*) is a very large tree, growing extensively in the forests north of Sydney. Its wood is more easily wrought than most of the hardwoods, and has great strength and durability, being employed largely for floors and other building purposes, and for the decking of ships.

The mountain ash, or white-top (*E. virgata*), is found both on the table-lands and in the coast districts. Its timber is in demand for coopers' work, and for rough carpentry. The tree grows to about 150 feet in height.

The turpentine tree (*Syncarpia laurifolia*) is found mainly in the district lying between the Shoalhaven and the Macleay. It grows to magnificent proportions, sometimes reaching a height of 200 feet, with a diameter of 6 feet. The timber is largely used for piling, and other work in sea-water, as it resists the attack of the teredo better than any other New South Wales timber.

BRUSH FORESTS.

The brush forests cover a considerable extent of country along the coast. The trees found in them differ entirely from those of the open forests, and there is no lack of variety either in the character of the trees or the colour of their foliage. Tall graceful fern trees, sometimes attaining a height of 60 feet, beautiful varieties of palms, cabbage trees, and Moreton Bay figs of enormous proportions, are prominent features of the northern brushes, though these are perhaps more ornamental than useful. There are, however, found in the brush forests timber trees of the greatest value.

The red and white cedar (*Cedrela australis* and *Melia composita*) were once abundant in the northern forests, but at present few of the full-grown trees are met with except on the high ridges. The red cedar is a magnificent timber tree, often attaining a height of 150 feet, with a girth of over 30 feet. Its timber is of great value, being light, easily wrought, durable, splendidly grained, and well adapted for furniture and cabinet-making. The white cedar is a pretty tree growing to a height of 80 feet, with a diameter of 3 feet. Its timber is soft and easily worked, but is deficient in tensile strength and durability, and therefore in no great demand.

The silky oak (*Grevillea Hilliana, G. robusta*) grows to the height of about 80 feet, under favourable circumstances, and yields a wood very suitable for cabinet-making.

The tulip-wood (*Harpullia pendula*) is a tall tree with beautifully marked timber of various shades, and susceptible of a fine polish.

The ash, or pigeonberry-tree, grows to a great height, sometime reaching 130 feet, with a diameter of 5 feet. Its timber is light and tough, and in good demand.

The colonial pine (*Araucaria Cunninghamii*) is one of the finest trees of Australia, sometimes reaching a height of 200 feet, with a trunk 4 feet thick. Its timber is extensively used, being cheaper than any imported pine; it is white in colour, and easily wrought.

Native beech (*Gmelina Leichhardtii*) is also a tree of noble proportions, reaching 150 feet in height. Its timber is greatly in demand, being superior to most native timber when exposed, as it neither shrinks nor warps. In colour the wood is white or silvery, with a fine close grain.

Besides the varieties mentioned above, there are in the brush forests many other trees, yielding timber of large size and of great value, but the abundance of timber of other descriptions more readily accessible has hitherto satisfied the local demand, and the resources of these forests have been almost entirely overlooked. The subject of the timber trees of the colony, viewed from a commercial standpoint, is treated in detail in the part dealing with forestry and fisheries.

The character of the vegetation of the brush forests alters considerably according to the latitude. The trees of the genera Araucaria and Flindersia, as well as cedar and its allies, find a home chiefly in the northern parts of the colony, while many of the trees growing in the south have no representatives in the northern forests. The soil of the brush lands is wonderfully fertile, consisting as it does of decomposed volcanic rocks, enriched by the accumulation of decayed vegetable matter, and when cleared it yields an abundant return.

Scrub Forests.

The scrub forests are found in the poor soils, principally in the Lachlan and Darling districts. The chief genera represented are the pines, and multitudinous species of acacia and eucalyptus, but although some of the trees are of great beauty, they have little commercial value. The most uninviting portion of the colony is covered with scrub, and the mallee districts, clothed as they are with stunted timber—species of eucalyptus—impress the traveller more unfavourably than would even a barren waste.

Specific Gravity and Strength of Timbers.

The specific gravity and resistance to breaking of various New South Wales timbers, and of some of the best-known European and other varieties, are shown in the following table. With regard to the New South Wales timbers, it should be mentioned that the tests were made with picked specimens, so that the results are perhaps considerably higher than would be obtained in actual practice. The modulus of rupture is eighteen times the load which is required to break a bar 1 in. square, supported at two points 1 foot apart, and loaded in the middle between the points of support, or

$$s = \frac{3\,W\,l}{2\,bd^2}$$

when W = load applied at middle of beam between supports, b = breadt d = depth, l = length of beam, and s = co-efficient of rupture or breaki stress per square inch :—

Timber Trees.	Specific gravity.	Resistance to breaking or modulus of rupture. =s
New South Wales—		lb. per sq. inch.
Spotted gum	·995	13,300
Grey gum	·917	13,100
Flooded gum	1·178	14,800
Red gum	·995	6,900
Woollybutt	1·022	12,700
Blackbutt	1·067	13,700
White ironbark	1·177	16,900
Grey ironbark	1·182	17,900
Red ironbark	1·224	16,300
Forest oak	1·208	15,500
Turpentine	1·109	11,700
Stringybark	1·141	13,900
Blackwood	1·129	10,300
Tallow-wood	1·233	15,260
Australian teak	1·006	14,400
Mahogany	1·201	14,500
Forest mahogany	1·156	13,800
Swamp mahogany	1·216	12,100
White beech	1·008	15,600
Mountain ash	1·065	11,500
Rosewood	1·189	10,600
Pine	·868	8,800
European and other Foreign—		
Ash	·753	13,000
Beech	·690	10,500
Birch	·711	11,700
Bullet-tree	1·046	19,000
Chestnut	·535	10,660
Ebony	1·193	27,000
Elm	·544	7,900
Fir, Red pine	·48 to ·70	8,300
,, Spruce	·48 to ·70	11,100
,, Larch	·50 to ·56	7,500
Greenheart	1·001	22,000
Kauri pine (New Zealand)	·579	11,000
Lance wood	·675 to 1·01	17,350
Lignum vitæ	·65 to 1·33	12,000
Mahogany (Honduras)	·56	11,500
,, (Spanish)	·85	7,600
Oak (British)	·69 to ·99	11,800
,, (Dantzic)	·69 to ·99	8,700
,, (American)	·99	10,600
Sycamore	·59	9,600
Teak (Indian)	·66 to ·88	15,500
Willow	·40	6,600

CONSTITUTION AND GOVERNMENT.

THE record of New South Wales as a Crown colony belongs more to history than to current statistics. It is therefore not proposed, in the following sketch, to deal with matters prior to the establishment of Responsible Government, though a brief narrative of the early history and settlement of the country will be found in the opening pages of this volume.

The present form of government was inaugurated forty-two years ago, the "Act to confer a Constitution on New South Wales, and to grant a Civil List to Her Majesty," having received the Royal assent on the 16th July, 1855. This important statute was proclaimed in Sydney on the 24th November of the same year, and at once came into operation, sweeping away entirely the former system, and constituting an elective representative Chamber, thus, by the granting of equal privileges, making the colonists of New South Wales the equals of their countrymen in other parts of the Empire. The ties which bound the colony to the Empire were in no way loosened, for the Constitution Act simply conceded to the people of New South Wales the same rights which prevailed in the United Kingdom, namely, of taxing themselves, and of being governed by Ministers responsible to a Parliament elected by the people. The authority vested in the Sovereign remains the same as before, though the mode of its exercise is widely different. The Sovereign, previous to Responsible Government, exercised, through the Governor, almost despotic power. This official in times past united in himself the executive and legislative functions, and personal liberty and independence were to no small degree in his power. With the establishment of Responsible Government this state of things ceased, and the greatest measure of individual liberty is now found compatible with the full protection of public rights. The readiness with which the people of the colony adapted themselves to the forms and practice of their new government was not a little remarkable, and fully justified their assumption of its privileges.

All laws are enacted in the name of the Queen, "by and with the advice of the Legislative Council and Legislative Assembly," the Governor, as the Royal Deputy, giving the assent of the Sovereign immediately to Acts of Parliament, or, if he should think fit, reserving them for the consideration of the Sovereign. In order that the Constitution may be clearly understood, it will be well to consider, under distinct heads, the several elements of which the Government and Legislature consist.

THE GOVERNOR.

Previous to 1879 the Governor of the Colony was appointed by Letters Patent under the Great Seal; but in that year the practice was discontinued by the advice of Sir Alfred Stephen, given during the tenure of office of Sir Hercules Robinson. The change was first carried out in the appointment of Sir Augustus Loftus. The office of Governor is now constituted by permanent Letters Patent, and by a standing Commission, instead of as formerly by letters issued *pro hac vice* only. The Governor receives his appointment at present by Commission under the Royal sign manual and signet, which recites the Letters Patent of the 29th April, 1879, as well as the instructions issued (under sign manual and signet) in further declaration of the Queen's "will and pleasure." The original Letters Patent, thus recited and enforced, declare that the Governor is directed and empowered "to do and execute all things that belong to his office according to the tenor of the Letters Patent, and of such Commission as may be issued to him under our sign manual and signet, and according to such instructions as may from time to time be given to him under our sign manual and signet, or by our order in our Privy Council, or by us through one of our Principal Secretaries of State, and to such laws as are now or shall hereafter be in force in the colony." By a custom which has now long prevailed, no Governor retains his office longer than six years. Should the Governor die or become incapable during his tenure of office, or be removed before the arrival of his successor, or should he have occasion to leave the colony for any considerable period, the Government is to be administered (1) by the Lieutenant-Governor; or, if there be no Lieutenant-Governor, (2) by an Administrator to be appointed according to the provisions of the Letters Patent and Instructions. The present Lieutenant-Governor is Sir Frederick Matthew Darley, K.C.M.G., C.J., who was appointed by a Commission, dated 23rd November, 1891.

The Lieutenant-Governor, or, in his absence, the Administrator, is empowered by his Commission to execute the office of Governor during any temporary absence of the Governor from the colony; but the Governor may not be absent, except in accordance with the terms of his instructions. Without the Queen's special leave he may not leave the colony for a period exceeding one month at a time, or exceeding in the aggregate one month for every year of his service, unless on a visit to the Governor of a neighbouring colony; but, on the other hand, he may leave the colony for any period not exceeding one month without its being reckoned as a departure, if he shall have previously informed the Executive Council in writing of his intention and appointed a deputy to act for him till his return. This deputy must, in the first instance, be the Lieutenant-Governor; but if, from any cause his services are not available, the Governor may appoint whom he please as his deputy.

The Governor's functions, according to the Letters Patent, Commission, and Instructions, may be recapitulated as follow :—

The Governor is the custodian of the Great Seal, under which all Crown grants, etc., must pass.

The Governor has the appointment of his own Council—the Executive. He is also to summon that Council, and is ordinarily its President; but in his absence some other member may be nominated to preside. It is usual, however, to appoint some member of the Ministry permanent Vice-President, who presides in the absence of the Governor.

The Governor is the fountain of honour within the colony, since to him belongs the power to appoint, in the Queen's name, all Judges, Justices of the Peace, Commissioners, and other "necessary officers and Ministers"; and, by virtue of his powers as Viceroy, he may remove from the exercise of his office any official so appointed.

The Governor is also the depositary of the prerogative of mercy within the colony, having it in his power to pardon, either absolutely or conditionally, any offender convicted in New South Wales. He can also remit fines, penalties, and forfeitures due to the Crown, but he cannot pardon or remit on the condition of the offender voluntarily leaving the colony, unless the offence has been a political one only. In all capital cases until recently the final responsibility of deciding whether or not the death penalty should be carried out rested solely with the Governor, but, by a new arrangement which has been agreed to by all the Australasian colonies, such final power is now exercised by the Governor "with the advice of the Executive Council." This places the procedure of these colonies, in regard to capital cases, on similar lines to the system that has for some time past been in force in Canada. Its adoption was suggested and strongly urged by Lord Onslow, the former Governor of New Zealand; and Lord Knutsford, the Secretary of State for the Colonies in the second Salisbury Administration, ascertained the views of the various Australasian colonies upon the subject. It being found that they all accepted the proposal as an improvement upon the practice then existing, a circular despatch was sent to each colony with instructions for its adoption. The new system was first used in New South Wales towards the end of October, 1892.

The Governor is also vested with the authority of the Crown, enabling him to nominate the members of the Upper House of the Legislature, and to summon, prorogue to a future day, or dissolve "any legislative body" existing in the colony. His instructions, however, provide that in the exercise of the above powers he is to act by the advice of the Executive Council in all cases except those whose nature is such that in his opinion the public service "would sustain material prejudice were he to follow such advice," or in matters too trivial to submit to the Council, or "too urgent to admit of their advice being given"; but in all such urgent cases he must communicate to the Council as soon as practicable the measures taken by him, and his reasons for acting. It is expressly provided, however, that the Governor may, if he think fit, disregard the advice of the Executive and act in direct opposition to the declared will of his advisers, but in such cases he is required to make a full report of the whole circumstances for the information of the Secretary of State for the Colonies.

The Governor acts as Viceroy as regards giving the Royal assent to or vetoing Bills passed by the Legislature, or reserving them for the special consideration of the Sovereign. The instructions deal at large with this matter, but it is usual in practice to be guided to a large extent by the advice of the law officers of the Crown. There are eight different classes of Bills, however, to which the Governor is bound to refuse the Royal assent. They are:—

(1.) Divorce Bills (that is, private bills divorcing particular persons).
(2.) Bills making any kind of grant, gratuity, or donation to the Governor.
(3.) Bills affecting the currency.
(4.) Bills imposing differential duties, which are not in accordance with the Australian Colonies Duties Act, 1873.
(5.) Bills apparently contrary to Imperial treaty obligations.
(6.) Bills interfering with the discipline or control of Her Majesty's land or sea forces employed in the colony.
(7.) Bills of great importance, or extraordinary in their nature, whereby the Royal prerogative, or the rights and property of Her Majesty's subjects residing beyond the colony, or the trade and shipping of the United Kingdom and its dependencies, may be prejudiced.
(8.) Bills containing provisions to which the Royal assent has already been refused, or which have been once disallowed, unless they contain a clause suspending their operation until the Queen's pleasure has been signified, or unless the Governor is satisfied that there is urgent necessity for bringing any such Bill into immediate operation, in which case he is empowered to assent to the Bill on behalf of the Queen, if it is not repugnant to the law of England, or inconsistent with Imperial treaty obligations; and in every such case he is required to transmit the Bill to Her Majesty, together with his reasons for assenting to it.

The following Acts of Parliament regulate the action of the Governor in assenting to Bills on behalf of the Queen, or reserving them for the consideration of the Sovereign:—5 and 6 Vic., cap. 76, secs. 31–32; 7 and 8 Vic., cap. 74, sec. 7; and 13 and 14 Vic., cap. 59, secs. 13, 32, and 33. The effect of these enactments is to deprive any reserved Bill of all force and legality until the Queen's assent thereto has been formally communicated to the Governor; and power is given to Her Majesty to veto any Bill to which the Governor has assented on her behalf within two years after the receipt of such Bill by the Secretary of State for the Colonies, in which case the Bill is to be declared null and void by message of the Governor, and proclamation. Reserved Bills are to be laid before Her Majesty in Council, and the Queen may allow them or not within a period of two years from the day on which they were reserved by the Governor. The Queen's assent to reserved Bills may be transmitted by telegram.

By Act 7 Vic., No. 16, all Acts of Parliament which become law are required to be registered by the Registrar-General within ten days of their so becoming law.

The above is a summary of the powers and duties of the Governor, as defined by his instructions and the Letters Patent, but additional duties have been imposed upon him by the Constitution and Electoral Acts. In accordance with these enactments he must summon the Legislative Assembly; appoint the President of the Legislative Council; prorogue or dissolve Parliament; appoint his ministers *proprio motu*; also appoint, with the advice of the Executive, all public officers whose appointment is not vested in heads of departments; issue all warrants for the payment of money; issue the writs for general elections, and, in the absence of the Speaker, issue writs to fill vacancies occurring in the Assembly.

In summoning, proroguing, or dissolving Parliament, the Governor usually acts according to the advice tendered him by the Cabinet, but he is in no way bound to do so, and, as a matter of fact, he has sometimes declined to be guided by his Ministers. This, however, has never happened except in respect to granting a dissolution. As to summoning or proroguing, a difference of opinion is hardly likely to arise. The relations established between the Ministry and the representatives of the people are in accordance with the time-honoured precedents prevailing in Great Britain, which may be thus defined. The Cabinet must be chosen from—"(1) Members of the Legislature; (2) holding the same political views, and chosen from the party possessing a majority in the House of Commons; (3) carrying out a concerted policy; (4) under a common responsibility, to be signified by a collective resignation in the event of Parliamentary censure; and (5) acknowledging a common subordination to one Chief Minister."

The Imperial rule as to the circumstances under which a Government is bound to resign is as follows:—Censure, involving loss of office, rests entirely with the Lower House, or popular branch of the Legislature; hence, directly a Ministry fails to command a majority of the House of Commons, it must give place to another. Want of confidence in a Cabinet may be shown in three ways: first, by a direct vote of censure, or a specific declaration of want of confidence; second, by a vote disapproving of some act of the Government; or, third, by the rejection of some important measure introduced by the Ministry. In any of these cases Ministers must either resign, or appeal to the country if they can get the Sovereign to sanction a new election.

These rules have been virtually adopted in New South Wales, and the undoubted right of the Governor, as the depositary of the Royal prerogative, to refuse to grant a dissolution, if he think fit, has been more than once exercised. In March, 1877, Sir Hercules Robinson refused to grant a dissolution to Sir John Robertson, and in September of the same year he also declined to enable Sir Henry Parkes to go to the country. The reason alleged in each case was that the Assembly refused to make provision for the expenditure of the year. It will thus be seen that a grave responsibility is thrown upon the Governor in the exercise of the unquestioned right of granting or refusing a dissolution of Parliament, and in the cases mentioned it can hardly be doubted that Sir Hercules Robinson acted within his powers. The Viceroy is the conservator of the rights and interests of the whole population, and it must be evident that grave evils would ensue should a dissolution take place before supplies had been granted.

The exercise of the prerogative of mercy is such an important function of the Governor, and he is so liable on some occasions to have strong pressure brought to bear upon him in connection with it, that it will be well to quote at length the instructions received a few years ago upon this point. The mode of procedure in capital cases has already been referred to, and in other cases the Governor is instructed not to pardon or reprieve any offender without receiving the advice of one, at least, of his Ministers; and in any case in which such pardon or reprieve might directly affect the interests of the Empire, or of any country or place beyond the jurisdiction of the Government of the colony, the Governor shall, before deciding as to either pardon or reprieve, take those interests specially into his own personal consideration in conjunction with such advice as aforesaid. In another part of his instructions the Governor is permitted to act in opposition to the advice of the Executive Council "if he see sufficient cause," but he is to report any such matter to the Sovereign without delay.

One exception to the rule that every exercise by the Governor of the Royal prerogative is subject, practically, to the control of the Legislature, occurs in connection with the exercise of his office as Commander-in-Chief of the land and sea forces. The Governor's powers in this regard are defined and regulated by the Military and Naval Forces Regulation Act of 1871, which, after providing for the raising and maintenance of a standing force, goes on to vest the supreme command in the "Governor," which title, in the interpretation clause, is defined to mean "the Governor with the advice of the Executive Council," *unless the context shall otherwise indicate.* Full powers with relation to the Volunteer Force are also bestowed on the Governor by the Volunteer Regulation Act of 1867, but in this, as in the former statute, "Governor" only means "the Governor with the advice of the Executive Council," *if this meaning is not inconsistent with the context or subject-matter.* It will at once be seen that these are both important limitations, as in certain imaginable contingencies the Governor is left free to act on his own responsibility. This places the Governor almost in the position of the Commander-in-Chief in England (when such an officer exists, which is very seldom, the control of the army usually being vested in Generals commanding-in-chief); that is, he has at times the absolute disposal of the armed force of the colony. This power is peculiar to New South Wales, as in other British colonies the Governor possesses no more power over the military than he does over any civil department of the Service. The position of the Governor as Captain-General does not, however, give him power to take the direct command of Imperial troops, should any such be stationed in the colony.

As regards the far more important power of the Governor to proclaim martial law, different opinions are held. But there is no doubt, as the power has not been conferred by any statute in force in the colony, that, if it exists, it must be a matter of prerogative. The necessity for proclaiming martial law has happily never occurred since the advent of Responsible Government.

THE EXECUTIVE.

The Executive Council is composed of the ten Ministers, namely: the Chief Secretary, the Treasurer, the Attorney-General, the Secretary for Lands, the Secretary for Public Works, the Minister of Justice, the Minister of Public Instruction and of Labour, the Secretary for Mines and Agriculture, and the Postmaster-General, with sometimes a Vice-President of the Executive Council, who is without a portfolio. These form the Cabinet, and, of course, are responsible to Parliament. The Ministry, as the advisers of the Governor, must also retain his confidence; but, practically, this is seldom likely to be withdrawn, so long as they command a working majority in the Assembly. The Governor may dissolve Parliament although the Ministry have not sustained a defeat, and in this case the continued existence of any Government would depend directly on the vote of the constituencies, but such a contingency can happen but seldom.

It is rare for more than one Minister to be selected from the Upper House, although at the present time there are two, and it will thus be seen that the principle of the responsibility of members of the Government to Parliament is fully carried out. For every act of the Governor as Viceroy some Minister is responsible to Parliament; and even in matters of Imperial interest, where the final onus rests upon the Governor, he himself is responsible to the Imperial Government, whose members are under the control of the House of Commons, so that no loophole is left for the exercise of any arbitrary act. The Crown, except in two instances (appeals to the Privy Council, and the bestowal of titles), acts towards the Executive through its representative, the Governor; and so long ago as the inception of Responsible Government, Earl Grey declared, in an official despatch, that he should make "a judicious use of the influence, rather than of the authority, of his office," which wise maxim has usually been followed. But in extreme cases, such as when his sanction is requested to any illegal proceeding, the Governor is bound, without question, to keep the law, though he may thereby be brought into hostile relations with the Cabinet. Sir Michael Hicks-Beach, in a communication to the Governor-General of Canada in 1879, clearly laid down the doctrine that the Governor of any British Colony "has an unquestionable constitutional right to dismiss his Ministers, if from any cause he feels it incumbent on him to do so." This does not militate against the doctrine of responsibility, for if the Ministry appointed by the Governor do not possess the confidence of Parliament, they cannot hold office, and hence the Governor will be forced to give way, or else persevere till he can select a Ministry whom the Assembly will accept. The final control will thus be, as in every other case, with the representatives of the people. In matters of routine the Governor will necessarily act on the advice of his Ministers, and in most cases relating to the internal economy of the departments, he will even adopt the individual recommendations of the Ministers by whom they are severally controlled.

As regards matters of purely Imperial interest, the Governor is responsible to the British authorities for their due conservation. If, in consequence of his action on any such matter, he is involved in a dispute with his Ministers, he is bound to refer them to the Sovereign, should his action have been endorsed by the Colonial Office. If his conduct were not approved of in England he would most likely be recalled. It follows from this, that in no case can the Governor be held to be responsible directly to Parliament for his conduct. His Ministers are responsible, but personally he has only to render an account to the Crown itself—that is, to the Imperial Parliament.

The Executive Council cannot discharge any function unless duly summoned by the Governor, and at least two members, besides the Governor or presiding member, are present to form a quorum. Formal minutes are, of course, kept of all proceedings.

The Executive Council, as at present constituted, is as follows :—

Premier and Colonial Treasurer....	The Right Hon. George Houstoun Reid, P.C.
Chief Secretary	The Hon. James Nixon Brunker
Attorney-General	The Hon. John Henry Want, Q.C.
Secretary for Lands	The Hon. Joseph Hector Carruthers
Secretary for Public Works.........	The Hon. James Henry Young
Minister of Public Instruction and of Labour..............................	The Hon. Jacob Garrard
Minister of Justice......................	The Hon. Albert John Gould
Postmaster-General	The Hon. Joseph Cook
Secretary for Mines and Agriculture	The Hon. Sydney Smith
Vice-President of the Executive Council and Representative of the Government in the Legislative Council (without portfolio)	The Hon. Andrew Garran, LL.D.

Since the introduction of Responsible Government there have been twenty-eight Ministries, the average tenure of office, excluding the Ministry at present in power, being about one year and five months. Nine Governments have been displaced by votes of censure, expressed or implied; three have resigned through having been defeated on important measures of policy; while two have retired on being saved from defeat only by the Speaker's casting-vote, and three others through a motion for the adjournment of the House being carried against them. Three Ministries were merged into the succeeding ones; five resigned without a direct vote having been carried against them, but in consequence of not possessing a working majority; one Government fell to pieces through internal disagreements; and one resigned in consequence of the Governor declining to appoint to the Legislative Council a certain number of its nominees.

THE PARLIAMENT.

It seems a singular omission in the Constitution Act that no definition is given of the relative powers of the Legislative Council and Legislative Assembly. Such is the fact, but little inconvenience has arisen thereby, since by common consent it has been agreed that the precedents regulating the proceedings and relations, *inter se*, of the two Houses of the Imperial Parliament shall be followed, as far as applicable, in New South Wales. The Constitution Act provides that all money Bills shall be introduced in the Lower House only. The important rule of the House of Commons, affirmed two hundred years ago and constantly enforced ever since, that "all aids and supplies, and aids to Her Majesty in Parliament, are the sole gift of the Commons, and it is the undoubted right of the Commons to direct, limit, and appoint in such Bills the ends, purposes, considerations, conditions, limitations, and qualifications of such grants, which ought not to be changed or altered by the House of Lords," is also held to be in force as regards the Parliament of this colony, and has generally been recognised and acted upon.

The two Houses, however, do not possess the most important of the privileges of the Imperial Parliament, namely, the right of punishing for contempt, although the Legislative Assembly has, on one occasion, punished one of its members, by expelling him for conduct, beyond its precincts, assumed to be dishonourable. As regards disorderly conduct within the walls of the Chamber, it has been held by the Supreme Court, and affirmed by the Privy Council, that the Assembly only possesses the power of suspending a member for disorderly conduct for the period of the sitting at which he displayed such conduct. A member may also be removed from the House by order of the Speaker if he persists in obstruction or contemns the Standing Orders; but fortunately this course has seldom been rendered necessary.

Witnesses may be summoned to give evidence before either House, or before committees of the Council or Assembly, the necessary powers for compelling their attendance having been conferred by an Act passed in

1881. Any person disobeying a summons may be arrested on a Judge's warrant, and the maximum penalty for refusing to give evidence is imprisonment for one calendar month.

As regards the maximum number of members of the Legislative Council, no limit is assigned by the Constitution Act, although the minimum number is fixed at twenty-one. It will be seen that this gives power to a Governor to quash any possible obstruction on the part of the Council to the will of the Government and the Lower House by "swamping" the Council. Such a proceeding, however, can hardly be held to be allowable, except under extreme circumstances. As a matter of fact, an attempt to "swamp" the Council was made during one of the premierships of the late Sir Charles Cowper, but public opinion condemned the course most strongly, although the somewhat peculiar circumstances of the case were thought at the time to justify the Governor's action. The authorities in England severely rebuked the Governor (Sir John Young) for the course he had taken, and since then "swamping" the Council has never been seriously entertained, nor is there much chance that it will ever again be attempted. The principle in fact has been affirmed, on the basis of an understanding entered into between Sir John Young and the leading statesmen of the day (on both sides of the House), that the members of the Legislative Council should be limited to a convenient number, and that no nominations should ever be made merely for the purpose of strengthening the party which happens to be in power. A deadlock between the two Houses is provided against by the universal feeling that the Assembly represents the will of the people, and in such case the Council would certainly have to give way to the deliberate will of the people's representatives. The Council is intended as a check to hasty legislation; and it doubtless acts as a useful "brake" to violent party feeling.

THE LEGISLATIVE COUNCIL.

As before stated, the members of the Upper House are nominated by the Governor, the minimum number composing the House being fixed at twenty-one. No limit as to numbers is fixed by the Constitution Act, but in accordance with the arrangement already described the number is practically kept down by the exclusion of all purely political appointments. As the number of members of the Assembly has increased to 125, the number of members composing the Council in November, 1897, (64) will not be considered an unfair proportion, as the increase is in about the same ratio as that of the Assembly. Every member of the Council must be of full age, and either a natural-born or a duly naturalised subject. Four-fifths of the members must be persons not holding any paid office under the Crown, but this is not held to include officers "in Her Majesty's sea and land forces on full or half pay, or retired officers on pensions." Though the appointment is for life, a member may resign his seat, and he also forfeits it by absence from two consecutive sessions without leave, by becoming naturalised in a foreign State, by becoming bankrupt, by becoming a public contractor or a defaulter, and by being attainted of treason or being convicted of felony or any infamous crime. The Governor appoints, and, if necessary, removes the President, who may speak in debate, but can only give a casting-vote. An attendance of one-third of the members on the roll was formerly necessary to constitute a quorum, but an Act has been carried reducing the proportion to one-fourth. The Council must hold a sitting at least once in every year, and no greater interval than twelve months must elapse between session and session. The proceedings are regulated by standing orders, which are, in the main, similar to those of the Assembly, the latter being framed on the model of the rules obtaining in the House of Commons. No member may sit or vote till he has taken the oath of allegiance, or the affirmation prescribed in lieu of that oath.

THE LEGISLATIVE ASSEMBLY.

In the Session of 1892–3, an Act was passed, entitled the Parliamentary Electorates and Elections Act of 1893, by which the course of procedure with regard to elections for the Legislative Assembly of New South Wales was almost entirely changed. The enactments under which such elections had been conducted up to that time—the Electoral Act of 1880, and the Wentworth Subdivision Act—were repealed upon the passing of the Act of 1893, with the exception of certain provisions which have since been abrogated by proclamation. During the year 1896 several important alterations were made in the 1893 Act in the direction of the extension of the franchise, and of the removal of restrictions placed upon electors changing their residence from one district to another.

The main principles of the new electoral system may be thus summarised:—The number of members of the Legislative Assembly, which had grown by virtue of the Expansion Clauses of the Act of 1880 from 108 to 147, was reduced to 125, and the number of electorates, now denominated Electoral Districts, was increased from 74 to 125. Under the new system, therefore, there are exactly as many members as electorates, or in other words, there are single electorates. This, of course, involved a complete re-distribution of the electorates, and special machinery had to be created in order that this might be done. In accordance with the Act three Commissioners were appointed, to whom was entrusted the duty of dividing the colony into 125 electorates, each containing as nearly as might be the same number of electors. In order to ascertain the quota of electors to be apportioned to each electorate, the number of resident electors on the roll for 1892–3, which happened to be 282,851, was divided by 125, and the quotient, 2,263, was fixed as the standard number of electors entitled to one representative. For subsequent distributions the number of electors on the roll at the time of such distributions will be divided by 125, in order to arrive at a new quota. Re-adjustments are to be made shortly after the taking of each Census, and also, if necessary, four or five years after the taking of each Census. In marking out the new Electoral Districts, the Commissioners were required to form them so as to include the standard number of electors as nearly as possible; but at the same time, in order to avoid inconvenient divisions, they were allowed a margin of 200 voters each way, while in exceptional cases, on the Commissioners furnishing satisfactory reasons, the margin might be as much as 600 either way.

The qualification for an elector is that he must be a natural-born subject who has resided in New South Wales for a continuous period of one year, or a naturalised subject who has resided in the colony continuously for one year after naturalisation. It was provided in the principal Act that in either case he must have resided three months continuously in the electoral district for which he claimed to vote; but by the amending Act 60 Vic. No. 25 the period of residence was reduced to one month in the case of a person already on the rolls, and who has but removed from one district to another. Every such person, being of the full age of 21 years, and not otherwise disqualified, is entitled to have his name on the electoral roll, and to have an elector's right issued to him. The persons disqualified under the new system were the same as those disqualified under the Act of 1880—namely, persons in the Naval or Military Service on full pay (except militia or volunteers); the Inspector-General or Superintendent of Police, or any person connected with the Police Force; and persons of unsound mind, or in the receipt of public charity, or criminally convicted; but the franchise was extended to the police force, including the Inspector-General and the Superintendents, in the course of the year 1896, by Act 60 Vic. No. 24. The disqualifications mentioned in the Constitution Act remain unchanged.

Power was given to the Governor under the Act of 1893 to subdivide each electoral district into divisions, and to appoint to each district an Electoral Registrar, with Deputy Registrars for the several divisions. It is one of the duties of these Registrars and Deputy Registrars to issue certificates known as electors' rights to those entitled to them in their several divisions. The electors' rights are printed in red ink upon paper specially prepared to prevent fraudulent imitations, with butts, like cheques, in accordance with a form as shown in Schedule A of the Act. They are bound in books, and numbered consecutively in black figures. Every person who has established his qualification to vote, and who has been placed on the electoral roll, is entitled to receive an elector's right upon signing his name in a book kept for that purpose, as well as on the butt and the face of the right itself. Under the principal Act an elector who removed from one district to another within three months of an election was practically disfranchised; but, as stated above, this period has now been reduced to one month, and until the elector is qualified to vote in the district to which he has removed he may use his right in his old district. Provision is also made in the event of a right being lost or defaced. Every elector's right remains in force until cancelled. It is provided by the amending legislation of 1896 that an elector who has changed his abode from one district to another may obtain a right for his new district after he has resided one month therein, and may have his name inscribed on the Additional Roll. When the Registrar of any district grants an application for an elector's right other than in lieu of one held for another district, he inscribes the name of the elector in a Provisional List, copies of which, during the first week of each month, are exhibited at every post-office and police-office within the district, so that to any name objection may be taken and heard at the Revision Court of the district, to be presided over by a Stipendiary or Police Magistrate. All names passed at the Revision Court are then inscribed in the Additional Roll.

During the first week in August of each year, the Registrar must make out a general list of all persons on the electoral roll for his district, as well as of those to whom electors' rights have been issued since the last roll was printed; and copies of all such lists are exhibited for public inspection at every post-office in the electoral district. Any person objecting to any name upon the list must give to the Registrar, in writing, his reasons for such objection, and the Registrar must notify the same to the person objected to. Every Registrar is supplied quarterly, by the District Registrar of Births, Deaths, and Marriages, with a list of all males above the age of 21 years whose deaths have been registered within the quarter. The Comptroller-General of Prisons and the Inspector-General of Police must forward quarterly to the Minister charged with the administration of the Act a list of all males above the age of 20 years in any gaol, lock-up, or other place of detention; and the Minister must send to the Registrar of each district such particulars as may be necessary for the purification of the electoral roll for such district. The Registrar must then write on a copy of the electoral roll, against the name of every person on the lists supplied to him as above, the words "dead" or "in custody, disqualified," or simply "in custody" where the particulars supplied do not appear to be such as to disqualify the person. A Revision Court is held in October each year, at which objections may be heard, and claims for insertion on the lists considered; and from the lists, when duly corrected and certified to by the magistrate presiding in the Court, the electoral roll is printed. In the year 1900 and every third year thereafter the General List is to be made up from the butts of the electors' rights.

Writs for the election of members of the Assembly are issued by the Governor. The writs for a General Election are required to be issued within four days from the proclamation dissolving Parliament, and are made returnable not later than thirty-five days from the date of issue. Parliament must meet not later than seven days from the return of the writs. The polling day for a General Election is fixed as the eighteenth day from the issue of the writs.

A person, to be qualified as a candidate, must be the holder of an elector's right. Each candidate must be nominated by at least six

and also, if necessary, four or five [illegible] must be made in writing,
In marking out the new Ele[illegible] the candidate, as consenting
required to form them so as [illegible] more than one vote in the
as nearly as possible; but [illegible] one vote" principle is en-
venient divisions, they were [illegible] one candidate. No deposit
while in exceptional cases [illegible] provision is made for the appoint-
reasons, the margin might [illegible] poll-clerks, and scrutineers, much
The qualification for [illegible] open from 8 a.m. to 6 p.m. in the
subject who has resid[illegible] inclusive, and from 8 a.m. to 5 p.m.
one year, or a natur[illegible] Every person claiming to vote must
tinuously for one [illegible] the Returning Officer that he is the
principal Act that [illegible] possess that right, and demand a ballot-
continuously in [illegible] a ballot-paper, containing the names
but by the am[illegible] right, as well as the butt, is stamped to
reduced to one [illegible] election. The elector has then to retire
who has but [illegible] of the polling-booth, there to strike out
being of the [illegible] on the paper, except the one for whom he
entitled to [illegible] folded so that the names are not visible, is
tor's right [illegible] Provision is made whereby an elector
system w[illegible] from his own electorate. At the close of the
namely, [illegible] and the result declared, in the ordinary manner.
militia [illegible] against bribery, treating, or intimidation are
or any [illegible] forbidden to make a wager on the result of
mind, [illegible] of from £5 to £50. There are also sections
the [illegible] of a Committee of Elections and Qualifi-
Go[illegible] similar to those conferred by the Act of 1880.
60 [illegible] for membership of the Legislative Assembly, pro-
ro[illegible] Act, still remain in force. They are as follow:—

[illegible] be a member of the Legislative Council.

[illegible] hold any office of profit under the Crown, either [illegible] of years or during pleasure.

[illegible] be in any way interested in any contract for the public service.

[illegible] Constitution Act Amendment Act of 1884, the disquali- [illegible] holding office of profit was declared not to apply to [illegible] Secretary or any other member of the Ministry. The third [illegible] also does not apply to any contract made by a company [illegible] of more than twenty persons. If any disqualified person [illegible] the election is voided by the House, and should such person [illegible] sit or vote he is liable to a fine of £500.

[illegible] Act assented to on the 21st September, 1889, members of the [illegible] are allowed the sum of £300 per annum to reimburse them [illegible] incurred in the discharge of their Parliamentary duties. [illegible] taking his seat each member must take the oath of allegiance [illegible] prescribed form, or make an affirmation in lieu of it. A member [illegible] resign his seat at any time, and he is held to have vacated it under the following conditions:—Absence during a whole session without leave, naturalization in a foreign country, bankruptcy, being a defaulter, or convicted of treason, felony, or any other infamous crime. The Act 37 Vic. No. 7 provides that no Assembly can prolong its existence beyond the term of three years. One session, at least, must be held every year, and twelve months must not elapse between any two sessions. On meeting after a general election, the first business is to elect a Speaker, who has only a casting vote. Twenty of the members (exclusive of the Speaker) constitute a quorum.

The first Parliament elected under the Constitution Act met on the 22nd May, 1856, just six months after the proclamation of the Constitution. The duration of Parliament, unless it should be previously prorogued, was originally fixed at five years, but in 1874 an Act was passed establishing triennial Parliaments, which has ever since remained law. Since the inauguration of Responsible Government there have been seventeen appeals to the people, so that it will be seen the duration of each Assembly has not averaged even the shorter period of life to which its existence is now limited. The subjoined table gives the duration of each Parliament elected under Constitutional Government:—

Parliament.	Opened.	Dissolved.	Duration. Yr.	Duration. mth.	Duration. dy.	No. of Sessions.
First	22 May, 1856	19 Dec., 1857	1	6	27	2
Second	23 March, 1858	11 April, 1859	1	0	19	2
Third	30 Aug., 1859	10 Nov., 1860	1	2	11	2
Fourth	10 Jan., 1861	10 Nov., 1864	3	10	0	5
Fifth	24 Jan., 1865	15 Nov., 1869	4	9	22	6
Sixth	27 Jan., 1870	3 Feb., 1872	2	0	7	3
Seventh	30 April, 1872	28 Nov., 1874	2	6	29	4
Eighth	27 Jan., 1875	12 Oct., 1877	2	8	15	3
Ninth	27 Nov., 1877	9 Nov., 1880	2	11	13	3
Tenth	15 Dec., 1880	23 Nov., 1882	1	11	8	3
Eleventh	3 Jan., 1883	7 Oct., 1885	2	9	4	6
Twelfth	17 Nov., 1885	26 Jan., 1887	1	2	9	2
Thirteenth	8 March, 1887	19 Jan., 1889	1	10	11	3
Fourteenth	27 Feb., 1889	6 June, 1891	2	3	10	4
Fifteenth	14 July, 1891	25 June, 1894	2	11	12	4
Sixteenth	7 Aug., 1894	5 July, 1895	0	10	29	1
Seventeenth	13 Aug., 1895	...	...	...	...	...
Average			2	3	14	3 to 4

The first general election under the new Act was held on the 17th July, 1894. The number of electors on the roll was 298,817, but of this number only 255,802 had obtained their electoral rights, so that 14·4 per cent. were apparently disfranchised. The lists, however, were swollen by the inclusion of deceased persons, and others who had left the colony, and probably the proportion of electors who had failed to obtain their rights was not more than 11·4 per cent. Excluding the constituency of Inverell, where there was no contest, the number of electors upon the roll in the 124 districts where the candidates went to the poll was 296,749, of which number 254,105, or 85·63 per cent., had received their rights. The persons who recorded their votes numbered 204,246, forming 68·82 per cent. of the electors upon the roll in the contested constituencies, and 80·38 per cent. of those who were entitled to exercise the franchise because they were the possessors of electoral rights. At the preceding election only 64·39 per cent. of the votes on the rolls in contested electorates were cast, so that, despite the extra trouble caused by the introduction of the new system, there was a gratifying increase in the number of persons who exercised their right to vote. At the same time, it must not be forgotten that the "one man one vote" system came into operation in 1894 for the first time.

The general election of 1895 was not so satisfactory as the preceding one. First of all, the number of electors upon the roll was only 267,458 as compared with 298,817 a year before. As already explained, the rolls in 1894 included the names of many deceased persons, and others who had left the colony, but when full allowance is made on this score it is still evident that the residential period of three months (now reduced to one month), and the absence of any provision by which an elector who had removed from one district to another might use his right in his old electorate, were responsible for the disfranchisement of voters on a somewhat large scale. Of the 267,458 electors upon the roll in 1895, 253,125, or 94·66 per cent., had obtained their rights, as compared with 85·6 per cent. in 1894. For eight electorates, members were returned unopposed. In the 117 contested districts the electors upon the roll numbered 252,267, of whom 238,233, or 94·44 per cent., held electors' rights. The number of votes recorded was 153,034, forming 60·66 per cent. of the electors upon the roll, and 64·24 per cent. of the electors who held their rights. These proportions are much lower than in 1894, when the corresponding figures were 68·82 per cent. and 80·38 per cent. respectively.

Speaking generally, it may be said that the electors display a considerable amount of interest in the public affairs of the colony, and the percentage of votes cast is not far below that recorded in the United Kingdom, where momentous issues have been decided by a general election. It is true that in the United Kingdom the system of plural voting is still in force, and the number of non-resident voters is very large; but the elections there extend over a fortnight, while in New South Wales they are all held on one day, and, furthermore, in this colony some of the electoral districts are of vast extent, and many electors can only record their votes at considerable inconvenience to themselves.

The number of males of full age compared with the total population is very large, the proportion at the last Census being 29 per cent. The number of persons actually enrolled at the general election in 1895 amounted to 20·3 per cent., or over one-fifth of the total population. The average number of electors on the roll per member was 2,139, and the estimated population to each member was 10,145. The subjoined table gives the result of all the general elections which have taken place under Representative Government :—

No. of Parliament.	Voters on Roll.	No. of Electors to a Member.	Total Members returned.	Members unopposed.	Votes on Roll in contested Electorates.	Votes recorded.	Percentage of Votes recorded.	Informal Votes.	Percentage o Informal Votes.
First	44,526	825	54	*	*	*	*	*	*
Second	72,177	1,002	72	14	54,896	27,894	50·81	*	*
Third	88,346	1,227	72	19	63,022	27,490	43·62	22	0·08
Fourth	106,189	1,475	72	19	75,676	28,340	37·45	29	0·10
Fifth	119,872	1,665	72	15	90,736	44,311	48·84	31	0·07
Sixth	128,734	1,788	72	11	108,080	56,331	52·12	102	0·18
Seventh	151,798	2,108	72	8	125,488	60,004	47·82	80	0·13
Eighth	160,843	2,234	72	10	104,575	57,651	55·13	334	0·58
Ninth	160,945	2,205	73	16	120,698	62,172	51·51	*	*
Tenth	188,500	1,745	108	14	140,848	90,657	64·36	1,785	1·97
Eleventh	196,289	1,737	113	17	166,260	96,842	58·26	2,002	2·07
Twelfth	232,190	1,900	122	8	203,669	124,378	61·07	2,564	2·06
Thirteenth	256,406	2,068	124	17	226,228	131,062	57·93	2,275	1·73
Fourteenth	280,160	2,045	137	13	257,763	154,924	60·10	2,641	1·70
Fifteenth	305,456	2,166	141	7	285,897	184,091	64·39	3,642	2·00
Sixteenth	298,817	2,296	125	1	296,749	204,246	68·82	3,310	1·62
Seventeenth ..	267,458	2,139	125	8	252,267	153,034	60·66	1,354	0·88

* Unrecorded.

The cost of the general election of 1894 was £25,989, giving an average of £208 for each of the 125 constituencies, or, excluding Inverell, where no contest took place, nearly £210. The sum of 1s. 9d. was expended on each of the 298,817 voters on the rolls, and 2s. 7d. on every person who voted. In 1895 the general election cost £20,405—an average of over £163 per electorate, and £174 for each of the 117 contested districts. The cost per elector on the rolls was 1s. 6d., and the cost per person who voted 2s. 8d. In addition to the amount expended on the general elections, a sum of £22,547 was expended during 1894 in inaugurating the new electoral system, as allowances to electoral registrars and deputies and to the police, in printing, and in advertising; while in 1895 the expenses of the system amounted to £12,837. Since the passing of the Act establishing triennial Parliaments, the average duration of the life of the Assembly has been under two years and three months. Taking the expenditure for this period at the average yearly rate of 1894 and 1895 —£17,692 per annum—and adding the mean cost of the last two general elections, a total of £63,004 is obtained as the cost of electing a Parliament of average duration under the present system. This gives an average of £2,520 for each of the 125 electoral districts into which the colony is divided, and, on the basis of the 1895 figures, 4s. 9d. for every voter enrolled, and 8s. 3d. for each vote cast.

FEDERATION.

At the present time a notice of the Constitution and Governme
the colony would be incomplete without some reference to the ques
of Australian Federation, which is now more prominently before
public than it has been at any previous stage of Australian history.
has already been shown in the initial chapter of this work that
question was not overlooked by the framers of the first free Austra
Constitution, who proposed the establishment of a General Asse
"to make laws in relation to those intercolonial questions that
arisen, or may hereafter arise," and who, in fact, sketched out a toler
comprehensive federation scheme. Unfortunately, however, that pro
tion was included with another for the creation of hereditary nobi
and in the storm of opposition and ridicule with which the latter
was greeted, the former sank out of sight. From time to time
Responsible Government came into being the evil of want of u
among the Australian colonies has been forcibly apparent, and the
of federation has gradually become more and more popular among
people. Some years ago the movement took such shape that, as the re
of an intercolonial conference, the matter came before the Imperial Pa
ment, and a measure was passed, permitting the formation of a Fe
Council, to which any colony that felt inclined to join could send deleg
The first meeting of the Federal Council was held at Hobart, in Janu
1886. The colonies represented were Victoria, Queensland, Tasm
Western Australia, and Fiji. New South Wales, South Australia,
New Zealand declined to join, but South Australia sent representat
to a subsequent meeting. The Council has held six meetings, at w
several matters of intercolonial interest were discussed; but being
its very inherent constitution only a deliberative body, having no e
tive functions whatever, it possessed no control of funds or other m
to put its legislation into force. The advocates of Federation were t
fore dissatisfied with the position the question was in, and agitation
instituted with a view of bringing about a more satisfactory state of th

An important step towards the federation of the Australasian Colo
was taken in February, 1890, when a Conference, consisting of re
sentatives of each of the seven colonies of Australasia, was held in
Parliament House, Melbourne. The Conference met on February 6,
there were thirteen members present, being two representatives
each of the colonies, except Western Australia, which sent only
Sir Henry Parkes, Premier and Colonial Secretary, and Mr. W. McMil
Colonial Treasurer, represented New South Wales. Mr. Duncan Gil
Premier of Victoria, was elected President of the Conference.
members held seven meetings, and discussed the question before the
considerable length. At the last meeting the Conference adopte
address to the Queen, expressing their loyalty and attachment,
submitting, as the result of the Conference, certain resolutions w
affirmed the desirableness of an early union, under the Crown, of
Australian colonies, on principles just to the several colonies; that

remoter Australasian colonies should be entitled to admission upon terms to be afterwards agreed upon; and that steps should be taken for the appointment of delegates to a National Australasian Convention, to consider and report upon an adequate scheme for a Federal Constitution.

In accordance with the terms of that resolution, delegates were appointed by the different Australasian Parliaments, and on the 2nd March, 1891, the National Australasian Convention commenced its sittings in the Legislative Assembly Chambers, Macquarie-street, Sydney, having been convened at the instance of Mr. James Munro, the Premier of Victoria. There were forty-five Members of the Convention altogether, New South Wales, Victoria, Queensland, South Australia, Tasmania, and Western Australia (which had only recently been placed in possession of the privilege of Responsible Government) each sending seven delegates, and New Zealand three. At the first meeting of the Convention the seven delegates from Western Australia were absent, as well as three other delegates representing Victoria, Queensland, and New Zealand respectively; but in the course of a few days the whole of the delegates arrived, and the Convention was complete.

The first business transacted by the Convention was the unanimous election of Sir Henry Parkes as President. Mr. F. W. Webb, Clerk of the Legislative Assembly of New South Wales, was appointed Secretary to the Convention, and Sir Samuel Griffith was elected Vice-President. Mr. (now Sir) J. P. Abbott, Speaker of the New South Wales Legislative Assembly, was subsequently elected Chairman of Committees. Rules of Procedure, similar in the main to those under which the business of Parliament is conducted, were adopted, and arrangements were made for the admission of the public to the debates, and for the publication of an official record of the proceedings.

A series of resolutions was moved by Sir Henry Parkes, setting forth certain principles necessary to establish and secure an enduring foundation for the structure of a Federal Government, and approving of the framing of a Federal Constitution. These resolutions were discussed by the Convention during nine sittings, part of the time in Committee of the Whole, and after amendment were finally adopted. The resolutions affirmed the following principles:—

1. The powers and rights of existing colonies to remain intact, except as regards such powers as it may be necessary to hand over to the Federal Government.
2. No alteration to be made in States without the consent of the Legislatures of such States, as well as of the Federal Parliament.
3. Trade between the federated colonies to be absolutely free
4. Power to impose Customs and Excise Duties to be in the Federal Government and Parliament.
5. Military and Naval Defence Forces to be under one command.
6. The Federal Constitution to make provision to enable each State to make amendments in its Constitution if necessary for the purposes of Federation.

Further resolutions approved of the framing of a Federal Constitution which should establish a Senate and a House of Representatives—the latter to possess the sole power of originating money Bills; also a Federal Supreme Court of Appeal; and an Executive consisting of a Governor-General, with such persons as may be appointed as his advisers.

Three Committees were then chosen among the delegates—one to consider matters relating to Finance, Taxation, and Trade Regulations; a second to deal with the establishment of a Federal Judiciary; and a third to prepare and submit a Bill for the establishment of a Federal Constitution. On Tuesday, March 31, Sir Samuel Griffith, as Chairman of the Committee on Constitutional Machinery, brought up a draft Constitution Bill, which was fully and carefully considered by the Convention in Committee of the Whole, and was adopted on Thursday, April 9. On the same day the Convention was formally declared to be dissolved, and it was left to the colonies individually to adopt or reject the scheme presented to them by the Convention.

In January and February, 1895, a Conference of Premiers, at which all the colonies except New Zealand were represented, was held at Hobart, for the purpose of arranging a scheme of federation on a basis which might secure a more speedy realisation of the hopes of federationists. It was decided to ask the Parliament of each colony to pass a Bill enabling the electors qualified to vote for members of the Lower House to choose ten persons to represent the colony on a Federal Convention. The work of the Convention, it was determined, should be the framing of a Federal Constitution, to be submitted to the electors of the colonies for their approval by means of the referendum. During the year 1896 Enabling Acts were passed by New South Wales, Victoria, South Australia, Tasmania, and Western Australia; and were brought into operation by proclamation on the 4th January, 1897. On Anniversary Day, the 26th January, the writs were issued in New South Wales. The election was held on the 4th March, the representatives chosen by the people being:—Messrs. Edmund Barton, Q.C.; The Right Hon. G. H. Reid, P.C., LL.D., M.P. (Premier and Colonial Treasurer); J. H. Carruthers, M.P. (Minister for Lands); W. McMillan, M.P.; W. J. Lyne, M.P.; J. N. Brunker, M.P. (Chief Secretary); R. E. O'Connor, Q.C., M.L.C.; Sir J. P. Abbott, M.P. (Speaker of the Legislative Assembly); and Messrs. J. T. Walker and B. R. Wise. The Convention met in Adelaide on the 22nd March, and after drafting a bill for the consideration of the various Parliaments, adjourned until the 2nd September. On that date the delegates re-assembled in Sydney, and debated the bill in light of the suggestions made by the Legislatures of the federating colonies. In the course of the proceedings it was announced that Queensland desired to come within the proposed union; and in view of this development, and in order to give further opportunity for the consideration of the bill, the Convention again adjourned, Melbourne having been decided upon as the third place of meeting, and the 20th January, 1898, the date upon which the sittings should be resumed.

SHIPPING.

THE shipping returns of New South Wales are compiled from information taken from the ships' papers, and contain particulars relating to all vessels trading to places beyond the colony. The tonnage given is, in every case, the net registered tonnage according to British measurement. The arrival of a vessel must be notified to the Collector of Customs within twenty-four hours. If a vessel puts in at more than one port of the colony, she is returned as having entered the first port only; and if she has come from a country beyond Australasia by way of a port or ports in one or more of the other colonies, she is regarded as having arrived from the place whence she originally took her departure. When a vessel berths at a public or private sufferance wharf, a certain number of free lay days, regulated by the tonnage of the vessel and the amount of carrying capacity occupied by the cargo to be landed, are allowed in which to discharge, and after they have expired, tonnage dues are imposed, the rate being one farthing per registered ton per day if the vessel has been fully laden, and if she has been partly laden only, one halfpenny per ton per day for the first twenty-five days, and half that rate thereafter. If the vessel berths for the purpose of loading only, no free lay days, of course, are allowed, and on vessels of 240 tons or more the rate is one halfpenny per ton per day for the first twenty-five days, after which time one farthing per ton per day is imposed. On sailing ships the amount is calculated on the registered tonnage, while with steamers the gross tonnage is adopted. On smaller vessels and on lighters berthing solely for the purpose of loading, a wharfage rate of ten shillings for each day or part of a day is imposed. In cases where a Government wharf has been let to a private company, the rent of the wharf is accepted by the State in lieu of tonnage dues.

A wharfage rate, which varies in amount with the kind of merchandise landed, is levied on all goods discharged on the wharfs, unless they have come from one of the other Australasian colonies, or from the Pacific Islands, and are intended for transhipment, in which case they are exempt from wharfage; and on goods shipped the rate charged is half that levied on merchandise imported. No wharfage rates, however, are charged at the port of Newcastle, and the collection of these rates at Wollongong was discontinued in April, 1896. For every trading vessel, with the exception of a whaler or a ship which has put into port through stress of weather or for the purpose of effecting repairs, receiving orders, taking in provisions, obtaining bunker coal, or being in distress, a harbour and light rate of fourpence per ton is required to be paid. The payment of the charge at one port affords immunity to the vessel at all ports of the colony for a period of six months, but after the expiration of that time the ship is liable to a similar charge when she again comes to a port in New South Wales. Unless the master should hold a certificate entitling him to pilot his ship into and out of port, pilotage is charged for on arrival or departure at the rate of 2d. per ton, and 1d. per ton if the ship be in ballast. The smallest sum payable is £2 10s. at Sydney or Newcastle, and £1 5s. at any other place where there is a pilot establishment; and £20 is the maximum sum payable. A whaler is not subject to pilotage charges; 1d. per ton on arrival is charged for vessels entering a port for the purpose of refitting or docking, or in order to obtain coal for use on board, and 2d. per ton when she leaves; and vessels compelled to enter port through stress of weather, or for the purpose of effecting repairs, receiving orders, or taking in provisions, or because they are in distress, are charged 1d. per ton on arrival, and the same rate on departure.

When it is desired to remove a vessel from one part of the harbour to another, permission to do so must be obtained from the Harbour Master, and if this officer should make the removal, a fee is charged, the amount payable being £1 if the vessel does not exceed 300 tons; £2 10s. if she does not exceed 1,000 tons; an additional £1 for every 500 tons or part thereof up to 1,500 tons; and a uniform rate of £4 10s. for a tonnage exceeding 1,500. Before a vessel can sail, a certificate of clearance must be obtained from the Custom House. If the ship has put into more than one port of the colony, she is returned as having cleared at the last port only; and if she is bound for more than one port, she is returned as having left for the country in which her terminal port lies.

THE MARINE BOARD.

The Marine Board of New South Wales is a body composed of seven wardens, four of whom, including the President, are appointed by the Government, and three, who must be registered owners of shipping of not less than 250 tons, are elected triennially by owners of shipping of 100 tons and over. The Board supervises all matters relating to steam navigation, and transactions in connection with the issue, suspension, and cancellation of certificates of competency and service; the framing of harbour regulations; the preservation of ports, harbours, rivers, etc.; the licensing, appointment, and removal of pilots; the regulation of lighthouses, lights, and rivermarks, moorings, licenses to lighters, watermen's boats, ferries, harbour and river steamers, etc. In shipping transactions of a general nature, it acts in conjunction with the British Board of Trade, and has jurisdiction over all British ships. It holds inquiries into shipping casualties in all cases where a port in the colony is the first entered after the occurrence, or the survivors have landed in New South Wales. The law provides for the establishment of local boards under the superintendence of the Marine Board in Sydney, but so far only one—that at Newcastle—has been created.

Before certificates are issued by the Marine Board, certain conditions have, of course, to be fulfilled. It is necessary for a candidate for a master's foreign-going certificate to be at least 21 years of age, and to have served six years at sea; but for a master's certificate for the coastal trade the candidate may be one year younger, and have served two years less than in the other case. A first mate's foreign-going certificate is not issued to a person of less than 19 years of age, nor to one who has served for a smaller period than five years; while for a second mate's certificate the lowest age is 17 years, and the shortest period of service four years. For the coasting trade, the age of the person to whom a mate's certificate is issued must not be less than 19 years, but he is only required to have served three years at sea. A first-class engineer must be at least 22 years of age, and second and third-class engineers at least 21 years old. Marine surveyors' certificates are issued to persons who have passed the examinations necessary for the obtaining of an extra first-class engineer's certificate, to master mariners who have been in command for not less than five years, and to those who have an extra master's certificate. Pilotage certificates are granted to masters of British ships employed in the Australasian and South Sea Island trade on passing the necessary examination, but they must have entered and left the particular port for which the certificate is desired thrice with their vessels as masters or officers of the watch.

QUARANTINE.

The Board of Health has entire control of all matters relating to health, and may place in quarantine any vessel, if it deems it advisable to do so for the preservation of the public safety. There is only one quarantine station in the colony for persons. It is situated inside the north head of Port Jackson, and in equipment and suitability of position it is surpassed by few quarantine stations in the world. There are also two stations in Sydney Harbour—one at Bradley's Head and the other at Shark Island—and one at the port of Newcastle, where foreign live stock may be placed in quarantine; and at Randwick there is another station for the isolation of Australian stock. The regulations for the quarantining of animals are enforced by the Department of Mines and Agriculture.

INCREASE IN SHIPPING.

The records of the shipping trade of New South Wales, although carefully kept by the various Governors, are not available prior to the year 1822, the earlier registers relating to the colony's statistics having disappeared. There are in existence, however, numerous manuscript returns which record the shipping trade of the earlier years, and these will doubtless be published at some future date.

During the year 1822, the shipping amounted to 71 vessels entered, aggregating a tonnage of 22,924; and 60 vessels cleared, with a total tonnage of 20,793. Twenty-eight years afterwards, just before the separation of Port Phillip, the figures stood thus: 976 vessels entered, with a tonnage of 234,215, and 1,014 vessels cleared, with a tonnage of 263,849. In 1851, the year of the separation of Victoria from the parent colony, the trade fell to 553 vessels entered, measuring 153,002 tons, and 503 vessels cleared, of 139,020 tons; but in 1860, the year [illegible] the shipping amounted to 1, [illegible] 427,835, and 1,438 vessels clea [illegible] on the figures of the prev [illegible] trade has rapidly increased, [illegible] In 1891, the shipping ent [illegible] quantity fell to 2,804,549 ton [illegible] In 1894, however, the shipp [illegible] the increase of 269,597 tons [illegible] which entered the ports during [illegible] a corresponding enlargement of [illegible] accession to the tonnage comin [illegible] Newcastle to load coal—prob [illegible] elsewhere in Australasia. [illegible] 1895, when the tonnage entered [illegible] saw the largest amount of shipping in [illegible] 3,080,751 tons entered—an increase [illegible] tons, all but 49,293 tons of which w [illegible] cargo.

[illegible] fairly constant, though checked o [illegible] seasons here, or the failure of pr [illegible] The following table shows the quantity [illegible] and departing from New South Wa [illegible] the date of the earliest records to [illegible] succeeding years :—

Year.	Entered.		Cleared.	
	Vessels.	Tonnage.	Vessels.	Tonnage.
[illegible]	73	22,924	60	20,793
[illegible]	83	24,539	75	22,688
[illegible]	157	31,225	147	28,822
[illegible]	260	63,019	269	66,964
[illegible]	708	178,958	665	163,704
[illegible]	397	105,352	614	103,961
[illegible]	976	234,215	1,014	263,849
[illegible]	1,192	353,323	1,185	362,482
[illegible]	1,426	427,835	1,438	431,484
[illegible]	1,912	635,888	2,120	690,294
[illegible]	1,858	689,820	2,066	771,942
[illegible]	2,378	1,109,086	2,294	1,059,101
[illegible]	2,108	1,242,458	2,043	1,190,321
[illegible]	2,601	2,088,307	2,583	2,044,770
[illegible]	2,889	2,413,247	2,777	2,348,625
[illegible]	3,021	2,821,898	3,100	2,872,338
[illegible]	2,960	2,804,549	3,067	2,842,635
[illegible]	2,914	2,590,371	2,916	2,602,957
[illegible]	3,272	2,859,968	3,291	2,878,586
[illegible]	3,121	2,929,758	3,090	2,930,280
[illegible]	3,224	3,080,751	3,208	3,109,009

e shipping tonnage of New South Wales greatly exceeds that of any r colony of the Australian group. Victoria stands next, after which e South Australia, Western Australia, New Zealand, Queensland, Tasmania. Of the total shipping of Australasia in 1896, nearly one- d entered and cleared in New South Wales ports.

NATIONALITY OF VESSELS.

he trade of the colony is, to a very large extent, carried on under British flag, the deep-sea trade being in the hands of shipowners of United Kingdom, and the coastal trade in local hands. There has, ever, been a notable increase in foreign shipping since 1881. In 0 the British shipping entered and cleared amounted to 1,333,410 s, while in 1896 it was 5,432,892 tons, showing an increase of 9,482 tons. The foreign shipping amounted to 128,352 tons in 0, and 756,868 tons in 1896, being an increase of 628,516 tons.

he advent of the French line of Messageries Maritimes, in 1883, and wo lines of German steamships some four years later, has tended to ease the amount of the foreign trade of the colony; but nevertheless tonnage under the British flag in 1896 was 87·8 per cent. of the le. The annexed table shows the respective amounts of British and ign tonnage for the years mentioned :—

Year.	British.	Foreign.	Total.
	tons.	tons.	tons.
1870	1,333,410	128,352	1,461,762
1875	2,001,641	166,546	2,168,187
1880	2,259,924	172,855	2,432,779
1885	3,615,582	517,495	4,133,077
1890	4,156,963	604,909	4,761,872
1891	4,902,607	791,629	5,694,236
1892	4,977,850	669,334	5,647,184
1893	4,704,300	489,028	5,193,328
1894	5,191,971	546,583	5,738,554
1895	5,215,174	644,864	5,860,038
1896	5,432,892	756,868	6,189,760

f the tonnage set down as British, the larger portion is owned or stered in Australasia. Prior to 1891, the returns do not allow of olonial shipping being divided between that belonging to Australasia that belonging to other British colonies; but in 1870, out of 1,333,410 of shipping entered and cleared under the British flag, 964,718 , or 72·3 per cent., belonged to British possessions, the great bulk being Australasian; in 1880, out of 2,259,924 tons entered and cleared, 1,499,236 tons, or 66·3 per cent., represented colonial shipping; while in 1896 the colonial shipping amounted to 3,078,312 tons (of which 3,000,357 tons were Australasian) out of a total of 5,432,892 tons, or 56·7 per cent. The amount of British, Australasian, and other colonial shipping entered into and cleared from New South Wales ports for the years shown was as follows:—

Year.	Shipping belonging—			Total, entered and cleared.
	To United Kingdom.	To Australasia.	To British Possessions other than Australasia.	
	tons.	tons.		tons.
1870	368,692	964,718		1,333,410
1875	740,683	1,260,958		2,001,641
1880	760,688	1,499,236		2,259,924
1885	1,520,091	2,095,491		3,615,582
1890	1,577,172	2,579,791		4,156,963
1891	1,813,716	3,029,067	59,824	4,902,607
1892	2,058,982	2,859,277	59,591	4,977,850
1893	1,808,340	2,866,967	28,993	4,704,300
1894	2,135,711	3,016,817	39,443	5,191,971
1895	2,244,650	2,882,579	87,945	5,215,174
1896	2,354,580	3,000,357	77,955	5,432,892

Compared with the figures just given, the tonnage of the foreign vessels trading with New South Wales will appear small. Taking the year 1896, for which the total tonnage of the principal nationalities is given below, Germany stands first, then France, then the United States. Norway is the only other nation whose carrying trade with the colony is important.

	Tonnage.
Germany	238,726
France	215,575
United States	114,579
Norway	107,298
Other nations	80,690
Total	756,868

STEAM AND SAILING VESSELS.

The records prior to the year 1876 do not distinguish the steamers from the sailing vessels, but the modern tendency to supersede sailing vessels by steam has been abundantly apparent in the twenty years which have since elapsed. In 1876 the steam tonnage was 912,554 as compared with 1,215,171 tons of sailing vessels, being 42·9 per cent. and

57·1 per cent. respectively. In 1896 the relative positions were transposed, for the tonnage of sailing ships had increased but slightly over the figures of 1876, being only 1,420,010 tons, or 22·9 per cent., as against 4,769,750 tons of steam, or 77·1 per cent. of the whole shipping. The increase of steam tonnage for the twenty years has, therefore, been over 422 per cent. The progress of the tonnage of each class will be seen from the following figures :—

Year.	Steam.	Sailing.	Year.	Steam.	Sailing.
	tons.	tons.		tons.	tons.
1876	912,554	1,215,171	1892	4,329,634	1,317,550
1880	1,550,372	882,407	1893	4,227,186	966,142
1885	2,791,843	1,341,234	1894	4,407,522	1,331,032
1890	3,654,814	1,107,058	1895	4,447,716	1,412,322
1891	4,299,791	1,394,445	1896	4,769,750	1,420,010

The advantage offered by the New South Wales trade to shipowners is illustrated by the large amount of tonnage coming to the colony in ballast, and the small amount leaving without cargo. A large proportion of the vessels arriving in ballast come from the ports of the neighbouring colonies, where they have delivered a general cargo, and, having been unable to obtain return freight, have cleared for Newcastle to load with coal. The largest amount of tonnage entered in ballast in any one year since 1870 was in 1896, when it reached 902,106 tons, and the largest amount cleared was 82,956 tons in 1891. The tonnage entered and cleared in ballast for the years shown was :—

Year.	Entered.	Cleared.	Year.	Entered.	Cleared.
	tons.	tons.		tons.	tons.
1870	237,246	21,004	1892	724,265	65,522
1875	320,921	12,830	1893	621,189	58,463
1880	217,763	16,219	1894	852,205	76,799
1885	345,366	53,381	1895	852,813	58,152
1890	544,264	66,846	1896	902,106	80,377
1891	632,617	82,956			

VALUE OF CARGOES.

As might be expected from the fact that over 29 per cent. of the tonnage which arrived in the colony in 1896 was in ballast, as against rather more than 2 per cent. of the clearances, the average value of freights outward was higher than of those inward. Thus the average value of he goods imported by sea was £5 13s 2d. per ton, while that of the goods xported was £5 17s. 4d., or 3·7 per cent. higher. If, however, allownce be made for shipping in ballast, the mean value of the exports was 6 0s. 5d., or 24·8 per cent. lower than the imports, which averaged

£8 0s. 1d. per ton. New South Wales exports have, generally speaking, a high value per ton, and the fact that, when vessels entering and leaving in ballast are excluded, they have a lower average value than the imports, is due to the large amount of coal exported, the quantity for 1896 having been 2,474,907 tons weight—equivalent to over 1,680,000 tons measurement, out of a total of 3,109,009 tons.

It will be seen from the following table that in the case of the great majority of the countries with which the colony has commercial relations, the exports from New South Wales have a higher average value than the goods imported. The figures for Queensland are exceptional, as a large quantity of gold is imported from that colony:—

Country.	Value of Imports per ton.			Value of Exports per ton.		
	£	s.	d.	£	s.	d.
United Kingdom	16	19	6	19	12	11
Victoria	2	13	1	4	9	0
Queensland	14	11	0	4	5	9
South Australia	4	16	8	14	4	7
Western Australia	0	4	5	6	18	10
Tasmania	4	7	11	1	7	7
New Zealand	3	15	3	1	18	11
Other British possessions	1	18	8	2	11	8
Belgium, France, and Germany	6	15	3	20	16	3
United States	14	19	6	9	7	11
Other foreign countries	2	5	6	1	3	3
Average	6	13	6	7	8	0

The trade with Belgium, France, and Germany has been grouped together in the table, as it is impossible to find the true average value of the trade of each of those countries, on account of the great bulk of the Belgian trade being carried in French and German bottoms. The greater part of the trade classed under "Other foreign countries" was transacted with various groups of islands in the South Seas and with South American countries. During 1896 the proportion of tonnage entering in ballast from Victoria was 42 per cent, from South Australia 36 per cent., and from Western Australia 85 per cent., of the arrivals, and this circumstance partly explains the low rate per ton of the imports from those colonies. As for the outward trade, the large quantity of coal shipped to the southern colonies lowers the general average value of the whole exports.

MOVEMENTS OF SHIPPING.

The following table shows the yearly movements of tonnage, exclusive of the coasting trade, of some of the principal nations of the world, and also of New South Wales, with the rate of tonnage per head of the population, the returns being made up to the latest date available :—

Country.	Tonnage.	Per Head of Population.	Country.	Tonnage.	Per Head of Population.
United Kingdom...	85,462,422	2·2	Italy	16,829,468	0·5
France	27,909,379	0·7	Spain	25,922,486	1·4
Germany	23,953,464	0·5	United States.....	35,271,758	0·5
Norway...............	5,339,150	2·7	Arg'ntine Republic	13,261,453	3·4
Sweden...............	12,383,747	2·6	Canada	10,976,829	2·2
Netherlands.........	13,531,345	2·8	New South Wales.	6,189,760	4·8

Of the tonnage engaged in the outward trade of the colony, 13·7 per cent. went to the United Kingdom, though in value the exports were 45·9 per cent. of the total. The tonnage of vessels to Victoria and the other Australasian colonies amounted to 52·6 per cent. of the whole, while in value the exports reached only 19·8 per cent. As regards the other British possessions, the tonnage of vessels carrying goods from New South Wales to their ports amounted to 6·5 per cent. of the whole, but the value only reached 2·9 per cent. In the case of foreign countries, the tonnage in 1896 amounted to 27·2 per cent. and the value to 31·4 per cent. The following table shows the tonnage entered from and cleared for the United Kingdom and the British colonies, and some of the principal foreign countries, as well as the value of the cargoes ; but it must be borne in mind that the tonnage figures represent the nominal tonnage of the vessels carrying the goods, and not the actual weight of the goods themselves, which latter information it is impossible to obtain :—

Country.	Entered.				Cleared.			
	Tonnage.		Value.		Tonnage.		Value.	
	Total.	Per cent.	Total.	Per cent.	Total.	Per cent.	Total.	Per cent.
	tons.		£		tons.		£	
United Kingdom	423,535	13·7	7,190,115	41·2	426,342	13·7	8,375,883	45·9
Victoria	796,548	25·9	1,010,286	5·8	740,341	23·8	1,106,066	6·1
Queensland	321,611	10·4	3,658,626	21·0	286,200	9·2	1,010,793	5·5
South Australia	297,346	9·7	437,521	2·5	191,193	6·1	357,982	2·0
Western Australia	113,746	3·7	25,351	0·2	76,800	2·5	533,265	2·9
Tasmania	135,925	4·4	597,706	3·4	121,153	3·9	167,399	0·9
New Zealand...........	187,359	6·1	704,699	4·0	220,809	7·1	429,583	2·4
Other British Possessions	323,528	10·5	625,164	3·6	201,372	6·5	520,328	2·9
Belgium, France and Germany	139,162	4·5	941,108	5·4	150,011	4·8	3,122,178	17·1
United States	115,497	3·7	1,729,871	9·9	219,798	7·1	2,064,964	11·3
Other Foreign Countries..............	226,494	7·4	515,392	3·0	474,990	15·3	552,170	3·0
Total	3,080,751	100·0	17,435,839	100·0	3,109,000	100·0	18,240,611	100·0

TONNAGE AND CREWS.

The average tonnage of vessels trading with the colony has gradually increased since 1845; previous to that year transports formed so large a portion of the total tonnage as to swell the average considerably. The average tonnage per ship at each decennial period since 1825 was as follows:—

Year.	Average tonnage of vessels.	Year.	Average tonnage of vessels.
1825	295	1875	463
1835	246	1885	797
1845	173	1895	939
1855	306	1896	956
1865	329		

Since 1870 the average tonnage of British and British-colonial vessels trading to New South Wales has increased by 158 per cent. in the one case and 117 per cent. in the other, while foreign vessels have increased in average tonnage by 220 per cent. during the same period. The advance in shipping during the last decade has been very marked, as the following figures, which show the average tonnage of vessels inwards from 1870, attest:—

Year.	British.		Foreign.	Year.	British.		Foreign.
	United Kingdom.	Colonial.			United Kingdom.	Colonial.	
1870	706	306	449	1892	1,696	684	1,302
1875	742	379	557	1893	1,766	647	1,477
1880	1,031	476	732	1894	1,769	615	1,401
1885	1,312	602	997	1895	1,784	648	1,471
1890	1,624	600	1,330	1896	1,821	663	1,438
1891	1,680	709	1,263				

The natural corollary to the increase in the size of ships and the improvements to the rigging and fittings is the decrease in the number of hands required per ton, though the actual number of hands employed per vessel has increased. Intercolonial vessels in 1896 carried an average of 22 men to every vessel, or 1 man to every 29·2 tons. Other British vessels carried in 1896 an average complement of 48 men, or 1 man to every 37·3 tons; while foreign ships carried an average crew of 47 men, or 1 man to every 30·3 tons. In 1870 British ships carried 1 man to every 26 tons, intercolonial vessels 1 man to every 20 tons, and foreign vessels 1 man to 35 tons, the decrease in the tonnage per sailor in foreign vessels being due to the finer class of ships that began to trade here in 1883; these are fitted in the most modern fashion, and manned accordingly. The following figures show the average crews of British, colonial, and foreign vessels for the periods mentioned :—

Year.	British.	Colonial.	Foreign.	Year.	British.	Colonial.	Foreign.
1870	27	15	13	1892	50	25	54
1875	27	17	14	1893	54	23	61
1880	44	21	25	1894	50	22	52
1885	44	24	36	1895	48	23	52
1890	52	22	49	1896	48	22	47
1891	51	25	41				

PRINCIPAL PORTS.

The relative importance of the various ports of Australasia may be ascertained by an inspection of the following table, which shows the shipping and trade of the principal Australasian ports for the year 1896. From these figures the rank of Sydney becomes evident. Melbourne takes the first place as regards tonnage; but the figures for purposes of comparison should be reduced by a large amount—from 350,000 to 400,000 tons entered and a like quantity cleared, or altogether about 750,000 tons—to allow for the circumstance that the great ocean steamers whose terminal port is Sydney are counted in the homeward and outward voyages as twice entering and twice clearing at Port Phillip; and with this allowance the shipping of Melbourne is exceeded by that of Sydney, as the Victorian port is also surpassed in the value of its trade. Newcastle occupies third place, for in the figures given for Port Adelaide the mail steamers are reckoned twice over, as at Melbourne. It should be noted in respect to Queensland ports that the tonnage of vessels is recorded at every port of call, and on this account the towns north of Brisbane also appear more important than they really are.

Port.	Entered.		Cleared.	
	Shipping.	Trade.	Shipping.	Trade.
	tons.	£	tons.	£
Sydney	2,104,613	16,821,742	1,806,438	16,638,847
Newcastle	783,669	611,880	1,084,220	1,496,687
Melbourne	2,195,878	11,872,280	2,161,522	13,195,911
Brisbane	653,803	3,134,694	642,961	2,086,232
Townsville	466,360	720,999	477,494	1,903,961
Port Adelaide	1,462,286	4,313,397	1,412,360	4,847,035
Port Pirie	122,433	250,290	154,315	1,197,731
Albany and Esperance Bay	830,761	581,624	748,206	166,397
Fremantle	232,299	4,734,379	177,074	820,012
Hobart	302,245	483,511	300,952	581,623
Launceston	101,770	534,747	96,794	663,629
Wellington	187,668	1,589,359	160,321	1,489,753
Auckland	241,426	1,960,570	190,859	1,276,035

The progress of the shipping trade of Sydney has been very uniform, the increase from the year 1860 being at an average rate of about 5½ per cent. per annum. The vessels registered as entering the port of Sydney considerably exceed in tonnage those clearing. To account for this difference it is only necessary to state that vessels leaving Sydney for Newcastle for the purpose of shipping coal are reckoned as departures from Newcastle, and not from Sydney. For this reason the clearances of Newcastle uniformly exceed the arrivals, as will be noticed in the subsequent table. The practice of clearing vessels at both ports at one time obtained, but has been abandoned for many years, and vessels are now cleared at the port which they last leave. The following statement shows the shipping entered and cleared at both Sydney and Newcastle for quinquennial periods from 1870 to 1890, and for consecutive years since the latter date. It will be seen that the tonnage of Sydney doubled itself from 1870 to 1880, and from 1880 to 1890, but during the last six years the total increase has only been 30 per cent. :—

Year.	Sydney.		Newcastle.	
	Entered.	Cleared.	Entered.	Cleared.
	tons.	tons.	tons.	tons.
1870	385,616	364,758	283,091	383,242
1875	590,700	468,423	510,902	573,626
1880	827,738	641,996	400,598	516,480
1885	1,608,169	1,283,888	452,946	722,865
1890	1,644,589	1,356,632	625,398	842,180
1891	1,934,556	1,535,306	704,306	1,140,536
1892	1,896,677	1,594,108	729,167	1,024,318
1893	1,902,265	1,585,857	524,844	842,363
1894	1,959,435	1,612,179	721,931	1,035,930
1895	2,027,951	1,669,654	727,834	1,048,400
1896	2,104,613	1,806,438	783,669	1,084,220

The comparative importance of the trade of Sydney may be realised by viewing it in connection with the trade of the chief ports of the United Kingdom. It will be observed that in absolute tonnage Sydney is surpassed by only five English ports—London, Liverpool, Cardiff, Hull, and Newcastle; though in point of value the trade of Sydney exceeds that of any port in Great Britain—London, Liverpool, and Hull excepted. Twenty of the most important ports of the United Kingdom are shown in the following table, and in all cases the tonnage and trade coastwise are omitted. In every case the figures refer to the year 1896 :—

Port.	Entered.		Cleared.	
	Shipping.	Trade.	Shipping.	Trade.
	tons.	£	tons.	£
England—				
London	8,993,285	146,852,558	6,588,910	83,227,874
Liverpool	5,643,514	103,512,255	5,239,510	93,298,954
Cardiff	3,957,920	3,006,507	6,947,224	6,171,821
Newcastle	1,722,789	6,963,442	2,881,315	3,466,963
Hull	2,262,929	26,686,090	1,748,980	20,218,000
Southampton	1,563,391	11,469,194	1,434,863	11,445,299
Bristol	733,595	9,613,989	375,187	1,284,128
Dover	809,851	8,738,692	800,322	2,638,036
Grimsby	795,648	6,952,637	761,097	10,685,899
Harwich	714,133	18,104,132	665,861	5,087,523
Newport	924,593	721,784	1,461,082	1,629,701
Sunderland	746,824	669,504	1,054,366	766,962
North Shields	1,134,193	456,530	1,587,553	1,329,058
Newhaven	366,037	8,795,552	355,958	2,902,040
Scotland—				
Glasgow	1,289,377	11,441,856	1,902,330	14,361,246
Leith	962,843	11,002,849	829,839	3,754,352
Kirkcaldy	484,320	268,295	818,404	563,163
Grangemouth	626,464	2,402,630	768,883	1,744,143
Ireland—				
Belfast	349,470	4,023,245	176,577	191,047
Dublin	225,563	2,292,043	126,604	75,745
New South Wales—				
Sydney	2,104,613	16,821,742	1,806,438	16,638,847
Newcastle	783,669	611,880	1,084,220	1,496,687

No other seaport of the colony can be compared with either Sydney r Newcastle, though for some time Wollongong has maintained a trade f some consequence, especially in coal; and of late years the importance f Eden, Twofold Bay, has increased. In 1896 the vessels which entered Wollongong direct from places outside the colony were, with one exception.

all in ballast, and totalled 87,225 tons; while at Eden the shipping entered amounted to 26,105 tons, and landed goods to the value of £1,271. The shipping cleared at Wollongong had an aggregate tonnage of 120,063, and at Eden 20,019, the value of the export trade at these two ports being respectively £94,925 and £1,269.

The average tonnage of sea-going vessels lying in the port of Sydney is about 80,000 per diem. The daily average at the port of Newcastle is about 35,000 tons. On the day on which the greatest number of ships are in port, in the wool season, the tonnage at Sydney is equal to about 125,000, and that at Newcastle to 84,000. The value of the shipping ordinarily moored or anchored in the port of Sydney may be set down at £2,000,000, and of that in the port of Newcastle at £500,000. The greatest value of shipping afloat in the two ports on any one day was about £4,500,000.

RIVER SHIPPING.

The trade borne by the rivers Murray and Darling varies greatly from year to year, according as they are favourable or otherwise for navigation. The Murray River is navigable during the greater part of each year, but the same cannot be said of the Darling, which as a rule can only be used by shipping during the period from March to September, when its volume is augmented by the flood-waters from the interior of Queensland. For the period over which the records extend both rivers have been navigable, and the tonnage at Wentworth on the Darling, at its confluence with the Murray, and at Moama and other Murray River ports, is given in the following table:—

Year.	Tonnage entered at—	
	Wentworth.	Moama and other Murray Ports.
1887	35,392	30,470
1888	22,427	28,339
1889	38,335	29,279
1890	42,637	30,140
1891	37,988	31,753
1892	31,071	28,781
1893	39,888	33,359
1894	47,224	41,403
1895	37,489	40,723
1896	38,623	36,800

SHIPPING REGISTERED.

During the year 1896, 863 steamers and sailing vessels, representing 103,612 tons net, stood registered in the books of the Custom House, as belonging to the port of Sydney. Of these, 439 were steamers, collectively of 58,511 tons net and 19,245 nominal horse-power. There were 48 sailing vessels on the register at Newcastle, their net tonnage being 6,392; and 54 steamers of 1,869 nominal horse-power, and 2,664 net tons. The total tonnage registered in the colony was 112,668, of which 61,175 was steam tonnage, with 21,114 nominal horse-power. These figures are exclusive of lighters, of which there were 50, of a total tonnage of 3,066, registered at Sydney; and 45, with an aggregate tonnage of 4,870, at Newcastle. A fee of £1 is charged for a lighter's license, which permits the boat to be employed for an indefinite period.

The total tonnage registered in New South Wales for the years shown was:—

Year.	Sailing vessels.			Steamers.			Total.		
	No.	Tons.	Crew.	No.	Tons.	Crew.	Vessels.	Tons.	Crew.
1870	50	8,349	380	14	1,494	89	64	9,843	469
1875	93	12,197	556	37	3,903	286	130	16,100	842
1880	54	7,003	325	20	2,159	168	74	9,162	493
1885	49	4,876	280	50	6,387	394	99	11,263	674
1890	28	6,234	191	21	4,027	278	49	10,261	469
1891	53	9,492	280	40	5,239	351	93	14,731	631
1892	60	3,282	262	46	5,848	458	106	9,130	720
1893	32	5,972	231	33	4,200	288	65	10,172	519
1894	29	4,897	153	19	3,067	140	48	7,964	293
1895	13	1,363	85	13	5,172	186	26	6,535	271
1896	24	2,661	80	26	5,541	208	50	8,202	288

During the year 1896 four vessels, aggregating 577 tons, were sold to foreigners, and in consequence were removed from the registers of this colony. Sales were also made to British subjects of 123 vessels, with a total tonnage of 11,247, which remained on the registers at Sydney and Newcastle.

VESSELS BUILT.

The years 1883 and 1884 were marked by great activity in the construction both of sailing and steam vessels, 50 sailing and 52 steam vessels having been built in 1883, whilst 39 sailing vessels and 64 steamers were built in the subsequent year. Trade then became less active, and the industry showed a tendency to die out. In 1888 it had fallen lower than in any of the preceding years, and there has been little improvement since, the tonnage of sailing vessels built during 1896 being only 369, and of steamers 598, in all 967. The number of vessels built in each of the years shown was :—

Year.	Sailing vessels.		Steamers.		Total.	
	No.	Tons.	No.	Tons.	Vessels.	Tonnage.
1880	29	1,938	12	861	41	2,799
1883	50	1,885	52	5,368	102	7,253
1884	39	2,518	64	5,145	103	7,663
1885	29	800	36	2,992	65	3,792
1886	27	1,339	40	2,637	67	3,976
1887	14	636	16	778	30	1,414
1888	9	304	11	394	20	698
1889	9	204	14	663	23	867
1890	9	394	6	697	15	1,091
1891	27	573	13	767	40	1,340
1892	27	782	10	317	37	1,099
1893	11	563	7	236	18	799
1894	6	466	8	463	14	929
1895	5	481	4	259	9	740
1896	7	369	8	598	15	967

The building of steam vessels during the last ten years was of more importance than that of sailing ships, the tonnage constructed during the period being 5,172 of steam and 4,772 of sailing; but from 1892 to 1895 the tonnage of the sailing vessels turned out of the yards of New South Wales exceeded that of the steamers. Schooners and ketches are the principal classes of sailing vessels built in the colony, the general tonnage of each class averaging considerably under 100 tons burden. The growing tendency to supplant sailing vessels by steamers, and the substitution of iron for wood for the frames and hulls of vessels, have given a check to the wooden ship-building industry, which at one time promised to grow to important dimensions. Every kind of timber suitable for the construction of ships is found on the rivers of the coast districts of New South Wales, but as the demand for this description of vessel has not increased, little advantage can be taken of the resources of the colony in this respect.

No reliable data have so far been procurable as to the number and tonnage of vessels built abroad for the New South Wales local trade, but the number must be considerable, and such vessels form an import of large value altogether lost sight of in the Customs returns. Some idea, however, of the large number imported may be gathered from the registration of the tonnage of other than New South Wales built vessels, which for the past ten years has averaged 4,441 tons sailing and 4,296 tons steam per annum.

DOCKS AND WHARFS.

The accommodation provided both by the Government and by private enterprise for the fitting and repairing of ships is equal to the requirements of the trade of the colony. At Sydney there are three graving docks, five floating docks, and three patent slips. At Newcastle there are two patent slips; besides which there are other docking and building yards in different parts of the colony for the convenience of coasters and small craft. The principal docks and slips in Sydney, as well as their leading dimensions and the size of vessel they will carry, are shown in the following table:—

Name of Dock.	Where situated.	Length.	Breadth	Draught of vessel that may be taken.	Lifting power of patent slip or dock.
Graving docks—		ft.	ft.	ft. in.	tons.
Fitzroy (Government)..	Cockatoo Island ...	450	59	21 6	...
Sutherland ,, ...	,, ,, ...	600	84	32 0	...
Mort's	Balmain	640	66 at top, 54 bot'm.	19 0	...
Floating docks—					
Rountree's	Waterview Bay ...	160	42	12 0	474
Atlas	Woolwich............	250	40	14 0	1,200
Jubilee (Mort's)	Johnston's Bay ...	317	55	15 0	1,500
Johnston's Bay (Mort's)	,, ...	90	28	7 3	120
Drake's.....................	White Bay	150	60	7 6	300
Patent slips—					
Mort's No. 1	Balmain	270	30	11 ft. forward, 17 ft. aft.	2,000
,, No. 2	,, ...	200	25	10 ft. forward, 16 ft. aft.	1,000
,, No. 3	,, ...	80	13 ft. 8 in.	5 3	40

All the necessary tools and appliances for the repairing of ships are found in the dockyards. The Sutherland Graving Dock at Cockatoo Island, the property of the Government, is one of the largest single docks in the world, and is capable of receiving vessels drawing 32 feet of water. During the year 1896, 149 vessels, of which 8 were British ships of war, were docked at Cockatoo Island, 70 being repaired in the Fitzroy Dock, and 79 in the Sutherland Dock, the gross tonnage of the vessels being 108,217. The dock receipts for the twelve months amounted to £3,307, and the expenditure to £1,849, exclusive of interest on cost of construction.

For natural facilities for shipping Sydney stands unrivalled. The water deepens abruptly from the shores, so that the largest vessels may be berthed alongside the wharfs and quays. The Government hold the shores of Sydney Cove, along the margin of which magnificent echelon wharfs have been constructed, which are capable of berthing vessels of

7,000 tons register. The depth of water at low tide ranges between 28 and 30 feet, and the wharfs have an available frontage of 6,530 feet. A large part of the wharfage at Pyrmont and Darling Harbour, and Cowper Wharf at Woolloomooloo Bay, are also in the hands of the State, and are fitted with steam cranes and other appliances for the speedy discharge of the largest ships constructed. The appliances for handling cargo on the Pyrmont wharfs, which are 3,500 feet in length, consist of four steam cranes of ten tons each, and on all the jetties the railway line is laid down to the water's edge. The Government wharfs at Darling Harbour are 4,000 feet in length, and are fitted with one steam crane of ten tons. Cowper Wharf, at Woolloomooloo Bay, is 3,000 feet in length, and also contains excellent accommodation for large vessels. At Blackwattle Bay there is a Government wharf 1,400 feet in length, and at White Bay a jetty 230 feet in length has been erected. The wharfage frontage in Port Jackson belonging to the Government is about 18,890 feet. Powerful shipping appliances and roomy stores, as well as electric lighting, are to be found on all the important wharfs. The total frontage of the public and private wharfs amounts to about 7 miles.

Newcastle is also a well-equipped port, where vessels of 4,000 tons can be safely berthed; and every modern steam and hydraulic appliance for loading coal is found on its wharfs. The Government owns nearly all the wharfage, which extends over a length of about 12,532 feet. The total length of the Bullock Island wharf is 7,760 feet, in addition to which there are four ballast jetties 50 feet long and 200 feet apart. 5,550 feet of the wharf is used for the shipment of coal. There are 12 hydraulic cranes of from 9 to 25 tons, each capable of shipping 1,000 tons of coal in twenty-four hours; and 3 steam cranes of 15 tons. It is proposed to spend £150,000 immediately in further increasing the shipping facilities at Bullock Island. On the town side of the harbour there are 3,607 feet of Government wharfs, extending in a continuous line, 2,130 feet being set apart for cargo berths for deep-draught vessels, 977 feet for timber and general cargo for light-draught vessels, and 500 feet for passenger steamers. The wharf at Stockton is 600 feet long, all of which is used for the shipment of coal, with one 15-ton steam crane and one shoot. In addition to the appliances mentioned, there are seven private shoots for the loading of coal. By the port regulations, steamers are required to receive coal at the steam cranes on Bullock Island at the rate of 500 tons per day, and at the rate of 600 tons at the hydraulic cranes. Sailing vessels are expected to receive at least 400 tons per day from the steam cranes, and 600 tons per day from the hydraulic cranes. It is estimated that 28,800 tons of coal per day can be shipped at Newcastle when all the appliances belonging to the Government and private companies are brought into use. There are also two slips owned by private individuals, capable of taking up vessels of 100 and 1,100 tons respectively. Staiths, cranes, and other coal shipping appliances have been erected at Wollongong, Bulli, Coal Cl and other ports. Private as well as Government wharfs are foun all the chief centres of population along the rivers of the colony, and all ports with a trade of any importance have their jetties and shipping facilities.

The revenue derived from public wharfs at Sydney, Newcastle, Wollongong, and other ports in 1896 was £65,518, of which sum Sydney contributed £53,503, made up of £6,005 for tonnage dues, and £47,498 for wharfage dues, rent, etc.; Newcastle, £8,319 for tonnage dues, no wharfage rates being collected at this port; and Wollongong, £1,412, viz., £132 for tonnage dues, and £1,280 for wharfage dues, rent, etc. At ports other than those mentioned, an amount of £2,284 was collected for wharfage rates, rent of jetties, etc., making the total receipts as stated.

LIGHTHOUSES.

The coast of New South Wales is well provided with lighthouses, the number at the end of 1896 being 23, besides which there were 17 leading lights and light-ships for the safety of harbour navigation. The cost of erecting the lighthouses was £186,081, in addition to which a sum of £27,006 was spent on lanterns, making a total expenditure of £213,087 on construction and equipment. The South Solitary Island lighthouse cost the largest sum to construct, namely, £31,259, exclusive of the amount paid for the lanterns. The Macquarie revolving electric light, on the South Head of Port Jackson, is one of the most powerful lights in the world, and is visible 25 miles at sea.

SHIPWRECKS.

The coast of New South Wales is free from any source of danger to vessels navigating it, and where reasonable precautions were taken wrecks have been very rare. There are only two lifeboat stations on the coast, one at the Sydney Heads, and the other at Newcastle; but the whale-boats at the various pilot stations have been fitted with cork linings, and otherwise made useful for the work of rescue, in which many of them have been of excellent service. The steam tugs subsidised by the Marine Board for the towing of ships in and out of port, are also available for the purpose of rendering assistance to vessels in distress; and life-saving appliances are kept at certain places along the coast. The majority of losses have been amongst vessels under 100 tons burden. During the year 1896 there were 10 wrecks within the jurisdiction of New South Wales, the total tonnage of the vessels being 1,078, and their value, including cargoes, £19,310. Two lives were lost out of a total of 78. The largest vessel which met with disaster was the steamer "Aldinga," 259 tons, which was wrecked on Bellambi Reef near Wollongong. The barquentine "Karoola," 201 tons, was wrecked at Morna Point near Port Stephens, two lives being lost out of a total of eight on board. The only other vessels over 100 tons burden which were wrecked during 1896 were the steamers "Favorite" and "Chindera," each of 111 tons; the former foundered off Clarence Heads, and the latter, whilst attempting to enter the Tweed River, was wrecked on the bar.

The following statement shows the number of vessels which were wrecked on the coast of New South Wales, or otherwise within the jurisdiction of the colony, during the ten years 1887–96 :—

Year.	Under 50 tons.	50 to 100.	100 to 200.	200 to 300.	300 to 400.	400 to 500.	Over 500 tons.	Total.	Lives Lost.
1887	4	5	2	1	...	...	1	13	2
1888	6	2	3	1	1	1	1	15	8
1889	4	8	5	2	...	...	1	20	4
1890	3	6	2	1	1	...	3	16	31
1891	3	10	3	...	...	1	1	18	47
1892	4	5	2	...	...	...	...	11	16
1893	4	3	6	1	1	...	...	15	4
1894	5	10	1	...	1	...	1	18	10
1895	3	4	...	...	...	1	2	10	63
1896	2	4	2	2	...	...	...	10	2

During the year 1896 the Marine Board of New South Wales, sitting in Sydney, and the local Board at Newcastle, held nineteen inquiries. Eleven masters were examined for the loss of vessels, five being exonerated, and the certificates of four suspended—each for a period of three months—one was reprimanded and cautioned, and in one case no evidence was adduced on which to found a charge of default. Three inquiries into collisions were also conducted, one master being censured, and the certificates of three suspended. Two inquiries into the stranding of vessels resulted in the mate's certificate of one vessel being suspended, and the dismissal of the case in respect of the other. Two inquiries were held into the supposed loss of missing ships.

DREDGING FLEET.

To keep open and improve the harbours and coastal rivers the Works Department in 1896 had employed 12 ladder dredges, with an attendant fleet of 29 punts having an aggregate tonnage of 8,680 ; 15 grab dredges; 8 sand-pump or suction dredges ; and 4 combined grab and sand-pump dredges. Besides the dredging plant there were 23 tugs employed towing punts to sea, and on other service appertaining to dredging operations. The work done and the cost for the year 1896 for each class of dredge were :—

Class of Dredge.	Tons Dredged.	Hours Dredging.	Expenditure.				
			Dredging only.			Dredging and Towing.	
			Total.	Per ton.	Per hour.	Total.	Per ton.
			£	pence.	£ s. d.	£	pence.
Ladder	3,303,241	19,942	34,150	2·48	1 14 2	47,524	3·45
Sand Pump ...	3,092,825	12,265	21,857	1·69	1 15 7	22,218	1·72
Grab and Sand Pump.	405,830	3,415	4,326	2·55	1 5 4	4,847	2·83
Grab	639,381	23,248	11,802	4·42	0 10 1	15,116	5·67
Total	7,441,277	58,870	72,135	2·32	1 4 6	89,705	2·89

The material dredged consisted for the most part of sand and mud, but stiffer material was raised by some of the dredges. The details show that while the average cost of dredging by ladder dredges was 2·48d. per ton, more than one-third of the total raised cost not more than 1·75d., and the most expensive dredging was at the rate of 5·34d. The cost of raising material by grab dredges was on an average 4·42d. per ton, the least cost being 1·83d. for sand and mud. A considerable quantity of rock and boulders was removed by these dredges, otherwise the average cost would not have been higher than 3·90d. per ton. The sand-pump dredges, eight in number, removed 3,092,825 tons during 12,265 hours, at the rate of 252 tons for each dredge per hour, the average cost being £1 15s. 7d. an hour, or 1·69d. per ton.

The cost of dredging in New South Wales compares very favourably with that in other countries. Comparing the work done at the mouth of the Hunter River at Newcastle with dredging on the Clyde, below Glasgow, it is found that the cost of lifting soft material by ladder dredges of equal power was in the former case 1·57d. per ton, and in the latter, 2·06d.; at Sydney, where the material removed was sand, mud, and sewage, the cost was 1·74d.—a satisfactory result, especially when it is considered that wages are twice as high in the colony as in Great Britain, and chandlery and other stores are dearer.

FARES AND FREIGHTS.

Looking at the extensive passenger traffic and shipping trade of New South Wales, it would naturally be expected that a liberal scale of fares and freights would be in force, and this will be found actually to exist. In many instances, indeed, the intercolonial rates have been extremely low, owing to the keen competition among the various steamship companies. The following figures will give an idea of the average passenger rates during 1896:—

Ports.	Fares.	
	First Class.	Second Class.
NEW SOUTH WALES PORTS.	£ s. d.	£ s. d.
Bateman's Bay	1 0 0	0 10 0
Bellinger River	1 15 0	1 0 0
Byron Bay	2 0 0	1 0 0
Clarence River	1 10 0	0 15 0
Eden	1 10 0	0 15 0
Macleay River	1 10 0	0 15 0
Manning River	1 5 0	0 15 0
Nambucca River	1 10 0	0 15 0
Newcastle	0 5 0	0 2 0
Port Macquarie	1 10 0	0 15 0
Ballina	1 10 0	0 15 0
Lismore	1 15 0	1 0 0
Ulladulla	0 15 0	0 10 0
Wollongong	0 4 0	0 2 6
VICTORIAN PORT.		
Melbourne	2 0 0 3 10 0	0 15 0 1 0 0
QUEENSLAND PORTS.		
Burketown	15 5 0	7 5 0
Bowen	7 10 0	3 15 0
Brisbane	3 0 0	1 0 0
Bundaberg	4 10 0	1 15 0
Cairns	8 10 0	4 10 0
Cooktown	9 10 0	5 0 0
Mackay	7 0 0	3 10 0
Maryborough	4 0 0	1 10 0
Mourilyan Harbour	8 10 0	4 10 0
Normanton	13 10 0	6 15 0
Rockhampton	6 0 0	2 15 0
Townsville	8 0 0	4 0 0
Thursday Island	12 15 0	9 15 0
SOUTH AUSTRALIAN PORTS.		
Adelaide	3 7 0 6 10 0	2 0 0 4 10 0
Port Pirie	3 10 0	2 0 0
Port Darwin (Northern Territory).	18 0 0	9 0 0
WESTERN AUSTRALIAN PORTS.		
Albany	8 10 0 12 0 0	4 0 0 8 0 0
Perth (Fremantle)	8 0 0	5 0 0
TASMANIAN PORTS.		
Hobart	1 10 0 2 5 0	1 0 0
Launceston	2 10 0	1 0 0

Ports.	Fares.		
	First Class.	Second Class.	Third Class.
NEW ZEALAND PORTS.	£ s. d.	£ s. d.	£ s. d.
Auckland	4 0 0	2 5 0	....
Dunedin (via Cook Strait)	5 10 0	3 5 0	....
Lyttleton " "	4 15 0	2 5 0	....
Napier (via Auckland)	5 10 0	3 5 0	....
Wellington	4 0 0	2 5 0	....
EUROPEAN PORTS.			
Antwerp	57 0 0	35 0 0	15 15 0
Bremen	57 0 0	35 0 0	15 15 0
Brindisi	£55 to £65	£32 to £37	£14 14 to £17 17
Genoa	52 0 0	30 0 0	13 10 0
London	£60–£70	£35 to £44	£15/15to £22/12/9
Marseilles	65 0 0	40 0 0	20 0 0
Naples	£50–£65	£30 to £37	£13/10to £17/17
Southampton	57 0 0	35 0 0	15 15 0
Venice	£55–£65	32 0 0	....
EASTERN PORTS.			
Aden	45 0 0	£30 to £33	£8 10-£15
Bombay	40 0 0	£25 to £27 10s.	13 10 0
Calcutta	40 0 0	£25 to £27 10s.	13 10 0
Colombo	35 0 0	£25 to £27 10s.	10 0 0
Hong Kong	33 0 0	23 0 0	....
Java	27 0 0	....	10 10 0
Penang	30 10 0	....	15 15 0
Port Moresby	22 10 0	14 0 0	....
Shanghai	37 10 0	26 0 0	18 0 0
Singapore	38 0 0	27 0 0	18 0 0
Mauritius	52 0 0	35 12 0	17 16 0
Port Said	£53–£63	£31 to £36	16 16 0
Reunion	51 0 0	35 0 0	17 12 0
Yokohama	39 15 0	27 0 0	....
PACIFIC PORTS.			
Aneityum	10 10 0	6 0 0	....
Fiji (Suva and Levuka)	10 0 0	6 0 0	....
Havannah (New Hebrides)	12 0 0	7 0 0	....
Honolulu	30 0 0	12 0 0	....
Noumea	10 0 0	7 0 0	3 12 0
Samoa Islands	20 0 0	10 0 0	....
San Francisco	40 0 0	16 0 0	....
Tonga Islands	16 0 0	9 10 0	4 10 0
Vancouver	40 0 0	16 0 0	....
SOUTH AFRICAN PORT.			
Cape Town	35 0 0	....	16 0 0

Fares by sailing vessels are in nearly every instance a matter of private arrangement between the captain of the vessel and the intending passenger, but the number of such passengers is becoming smaller from year to year owing to the great decrease in steamer fares. Fares from Sydney to London are, however, given as £35 to £45 first class, and £18 to £22 second class; and from Newcastle to San Francisco as £20 to £25.

The freights paid for the carriage of wool to London determine, within certain limits, the freight of most other produce. The present average cost of carriage of greasy wool to London is 5/16d. per lb.; in 1834 the average was somewhat over 3d. Information regarding freights is not available for early years, but since 1857, as the following figures show, the freights on pressed greasy wool have fallen 50 per cent. The freights are in every case for sailing ships, as the practice of shipping wool by steamers was by no means general until very recent years.

Year.	Freight per lb.	Year.	Freight per lb.	Year.	Freight per lb.
1857	5/8d.	1871	5/8d.	1885	3/8d.
1858	5/8d.	1872	5/8d.	1886	3/8d.
1859	5/8d.	1873	5/8d.	1887	3/8d.
1860	5/8d.	1874	5/8d.	1888	7/16d.
1861	5/8d.	1875	3/8d.	1889	7/16d.
1862	5/8d.	1876	1/2d.	1890	7/16d.
1863	5/8d.	1877	3/8d.	1891	7/16d.
1864	5/8d.	1878	7/16d.	1892	11/24d.
1865	1/2d.	1879	1/2d.	1893	13/32d.
1866	5/8d.	1880	11/16d.	1894	13/32d.
1867	3/4d.	1881	7/8d.	1895	11/32d.
1868	9/16d.	1882	3/8d.	1896	5/16d.
1869	1/2d.	1883	1/2d.		
1870	5/8d.	1884	3/8d.		

The following table of freights calls for no particular comment, as prices have remained fairly uniform for several years, except when slightly affected by temporary causes :—

Year.	Vessel.	Per lb.	Per ton weight.			Per ton measurement (40 cubic feet).	
		Wool (Greasy).	Tallow.	Leather.	Hides.	Preserved Meats.	Measurement Goods.
1887	Sailing	$\frac{5}{16}$d. to $\frac{3}{8}$d.	22/6 to 30/-	30/- to 35/-	15/- to 20/-	25/-	25/-
	Steam	$\frac{3}{8}$d. to $\frac{5}{8}$d.	30/- to 45/-	40/- to 50/-	....	....	25/- to 45/-
1888	Sailing	$\frac{5}{16}$d. to $\frac{7}{16}$d.	25/- to 45/-	30/- to 45/-	20/-	25/- to 30/-	25/- to 30/-
	Steam	$\frac{1}{2}$d. to $\frac{3}{4}$d.	30/- to 52/6	35/- to 50/-	....	30/-	60/-
1889	Sailing	$\frac{5}{16}$d. to $\frac{7}{16}$d.	25/- to 45/-	27/6 to 45/-	15/- to 20/-	22/6	20/- to 25/-
	Steam	$\frac{1}{2}$d. to $\frac{3}{4}$d.	25/- to 50/-	40/- to 60/-	....	....	....
1890	Sailing	$\frac{3}{8}$d. to $\frac{1}{2}$d.	32/6 to 47/6	35/- to 45/-	15/- to 25/-	25/- to 30/-	25/- to 35/-
	Steam	$\frac{1}{2}$d. to $\frac{5}{8}$d.	35/- to 50/-	45/- to 60/-	....	30/-	60/-
1891	Sailing	$\frac{1}{4}$d. to $\frac{7}{16}$d.	26/- to 45/-	27/6 to 40/-	20/- to 30/-	17/6 to 25/-	22/6 to 45/-
	Steam	$\frac{5}{16}$d. to $\frac{3}{4}$d.	32/6 to 45/-	32/6 to 50/-	30/- to 35/-	....	32/6 to 60/-
1892	Sailing	$\frac{3}{8}$d. to $\frac{9}{16}$d.	27/6 to 37/6	27/6 to 40/-	15/- to 22/6	20/- to 27/6	27/6 to 40/-
	Steam	$\frac{3}{8}$d. to $\frac{3}{4}$d.	45/- to 50/-	40/- to 60/-	35/-	32/6 to 40/-	40/- to 60/-
1893	Sailing	$\frac{5}{16}$d. to $\frac{1}{2}$d.	25/- to 40/-	25/- to 40/-	15/- to 22/6	15/- to 17/6	25/- to 40/-
	Steam	$\frac{3}{8}$d. to $\frac{5}{8}$d.	35/- to 50/-	35/- to 60/-	30/- to 40/-	30/-	40/- to 60/-
1894	Sailing	$\frac{3}{8}$d. to $\frac{7}{16}$d.	32/6 to 37/6	32/6 to 40/-	17/6 to 20/-	17/6	25/- to 30/-
	Steam	$\frac{3}{8}$d. to $\frac{1}{2}$d.	40/- to 50/-	35/- to 50/-	30/-	25/- to 30/-	35/- to 50/-
1895	Sailing	$\frac{5}{16}$d. to $\frac{3}{8}$d.	17/6 to 35/-	30/- to 40/-	15/- to 22/6	15/- to 17/6	20/- to 35/-
	Steam	$\frac{5}{16}$d. to $\frac{1}{2}$d.	22/6 to 40/-	35/- to 65/-	25/- to 40/-	20/- to 30/-	30/- to 45/-
1896	Sailing	$\frac{1}{4}$d. to $\frac{5}{16}$d.	12/6 to 25/-	25/- to 30/-	15/- to 17/6	12/6 to 15/-	17/6 to 30/-
	Steam	$\frac{1}{4}$d. to $\frac{1}{2}$d.	12/6 to 35/-	27/6 to 45/-	25/- to 40/-	20/- to 30/-	20/- to 40/-

COMMERCE.

THE Collector of Customs administers affairs relating to Customs and Excise, and receives all revenue derived from the charges on shipping, except the fees of the Marine Board, and the moneys received from the public wharfs. A Board, consisting of three Commissioners, exists for the purpose of determining disputes between the general public and the officers of the department, but its decisions may be disallowed by the Governor or appealed against to the Supreme Court, with final reference to the Privy Council.

The coastal trade of the colony may be conducted under one of two systems—either the captain of a vessel may obtain a document, called a "Transire," permitting his ship to engage in the local carrying trade for a period of three months, or he may enter the particulars of his cargo in a book kept for that purpose, and have the entries initialled at the Custom House every voyage. It is not necessary to pass entries for goods shipped from one port of the colony to another, although, of course, excisable articles are carried under a bond certificate. With regard to merchandise destined for or received from abroad, a different course of procedure is adopted. A declaration must be made to the Customs of the quantities and values of all imports, except such goods as have been brought into port for transhipment, of which only a description of the packages is entered, there being no law in existence requiring merchants to supply the quantities and values of such goods. Of articles which are subject to specific duties, the values declared by the importers are understood to be the values at the port of shipment, with packing, freight, insurance, and all other charges added. The declared values of the goods are checked, and, where wrongly stated, amended by the Customs officials. Dutiable articles may be reintroduced to the colony under reintroduction certificates, which are issued by the Customs Department for the port or border station at which it is desired to reintroduce the goods. All goods seized by the Customs are submitted to auction sale, and if they do not realise the amount of duty leviable on them they are withdrawn and destroyed.

The entries for imports passed at the Customs do not in every case show the countries from which the goods have actually come, but usually the places at which they were shipped. This is an imperfection incidental to all Customs statistics, which in the present method of conducting trade cannot be avoided. The desirability of recording the actual place of origin is admitted and the Customs officers go so far as to alter the entries where the nature of the goods clearly shows that they have arrived from another country than the one stated. In like manner the exports of the colony are in many cases cleared for other countries than those for which they are ultimately destined, and it is estimated that some £4,309,000 of goods in transit to Europe are credited in the Customs to Victoria and South Australia.

Although goods transhipped at Sydney and other ports are not included in the trade returns of the colony, in some of the provinces to which they are forwarded they are treated as exports of New South Wales, and there is in consequence a discrepancy between the interchange figures published in this colony and those of the other colonies where the practice mentioned prevails. Dutiable articles carried by vessels for use or consumption on board are, however, classed as exports here when the vessels clear, but no account is taken of goods on the free list. The quantities and values of exports are not, as in the case of the imports, obtained under declaration, but the Collector of Customs has power to adopt this form of procedure should he think it advisable to do so. The values given in the returns represent the values of the goods at the place of shipment in the colony, and are checked by the Customs officers with the prices ruling from day to day in the local markets.

Increase of Trade.

The value of goods imported into and exported from New South Wales has increased during the seventy-one years over which the records extend, from £400,000 in 1825 to £43,571,859 in 1896. The yearly values have been somewhat uncertain in their increase, the imports from 1840 to 1852 being especially erratic; but of late years the progress of the colony, as evidenced by its trade, has been remarkably steady, the largest falling off in any year being that experienced in 1892. The gross value of the exports from year to year, for the reasons hereafter pointed out, forms the surest index of the progress of a country circumstanced like New South Wales, and the result of a rise or fall in the value of the staple commodities, or of a depression in production, may be readily traced in the corresponding rise or fall in the export values. The amount of the trade of the colony, for the several periods shown, was :—

Year.	Imports.	Exports.	Total Trade.	Year.	Imports.	Exports.	Total Trade.
	£	£	£		£	£	£
1825	300,000	100,000	400,000	1890	22,615,004	22,045,937	44,660,941
1830	420,480	141,461	561,941	1891	25,383,397	25,944,020	51,327,417
1840	3,014,189	1,399,692	4,413,881	1892	20,776,526	21,972,247	42,748,773
1850	2,078,338	2,399,580	4,477,918	1893	18,107,035	22,921,223	41,028,258
1860	7,755,859	6,311,351	14,067,210	1894	15,801,941	20,577,673	36,379,614
1870	8,284,378	8,030,578	16,314,956	1895	15,992,415	21,934,785	37,927,200
1880	14,176,063	15,682,802	29,858,865	1896	20,561,510	23,010,349	43,571,859

The following table shows the total value of the trade of New South Wales with each of the principal countries during the year 1896:—

COUNTRIES.	Total Imports therefrom.	Exports thereto.			Total Trade.
		Domestic Produce or Manufacture.	Other Produce or Manufacture.	Total.	
AUSTRALASIAN COLONIES:—	£	£	£	£	£
Victoria	2,115,721	2,767,303	529,148	3,296,451	5,412,172
Queensland	4,679,456	414,808	812,946	1,227,754	5,907,210
South Australia	1,436,927	2,454,850	265,524	2,720,374	4,157,301
Western Australia	25,351	217,223	316,042	533,265	558,616
Tasmania	597,706	45,774	121,625	167,399	765,105
New Zealand	704,699	153,853	275,730	429,583	1,134,282
Total, Australasian Colonies	9,559,860	6,053,811	2,321,015	8,374,826	17,934,686
UNITED KINGDOM	7,190,115	6,486,907	1,888,976	8,375,883	15,565,998
OTHER BRITISH POSSESSIONS:—					
Canadian Dominion	83,810	8,436	3,119	11,555	95,365
Ceylon	113,352	6,516	269	6,785	120,137
Fiji	36,058	35,194	72,530	107,724	143,782
Hong Kong	75,860	19,216	166,385	185,601	261,461
India	203,176	125,059	1,144	126,203	329,379
Straits Settlements	19,877	18,598	515	19,113	38,990
Mauritius	73,635	19,530	78	19,608	93,243
Other British Possessions	19,396	25,454	18,285	43,739	63,135
Total, Other British Possessions	625,164	258,003	262,325	520,328	1,145,492
FOREIGN COUNTRIES:—					
Belgium	104,293	694,648	183,232	877,880	982,173
China	190,545	6,442	1,435	7,877	198,422
France	145,972	1,214,374	258,535	1,472,909	1,618,881
Germany	690,843	639,038	132,351	771,389	1,462,232
Italy	48,925	22,289	18,391	40,680	89,605
Japan	40,857	29,810	5,713	35,523	76,380
New Caledonia	41,263	40,179	70,156	110,335	151,598
South Sea Islands and New Hebrides	75,470	18,497	62,019	80,516	155,986
United States	1,729,871	1,027,096	1,037,868	2,064,964	3,794,835
Other Foreign Countries	118,332	251,597	25,642	277,239	395,571
Total, Foreign Countries	3,186,371	3,943,970	1,795,342	5,739,312	8,925,683
General Total	20,561,510	16,742,691	6,267,658	23,010,349	43,571,859

Of the total trade shown above, nine-elevenths are sea-borne, the remaining two-elevenths comprising the overland trade with the three bordering colonies of Queensland, South Australia, and Victoria. Nearly the whole of the seaward trade is monopolised by the ports of Sydney and Newcastle, the trade of the other six ports amounting to little more than £107,000, and of this amount eight-ninths belong to the port of Wollongong. The distribution of the overland trade is much more equal, as the table given below will illustrate. The value of the overland trade with Victoria during 1896 was £3,295,820; that with South Australia came to £3,361,798; and the Queensland overland trade was worth £1,237,791. Wool and live stock formed the bulk of this traffic with Victoria and Queensland, as it did until recent years with South Australia also; but since the development in 1886 of the mines in the Barrier district, the chief elements of export have been silver bullion,

lead, and ore; and the imports, general merchandise for Broken
The appended table shows the trade of each of the ports and bo
stations of the colony during 1896. Some of the latter—Wilca
and Bourke, for instance—are situated at a considerable distance f
the actual border.

Port or Station.	Imports.	Exports.			Tota Trad
		New South Wales Produce.	British and Foreign Produce.	Total.	
	£	£	£	£	£
SEAWARD.					
Sydney	16,821,742	10,621,727	6,017,120	16,638,847	33,460
Clarence River (Grafton)	484	6,131	....	6,131	6
Eden	1,271	1,265	4	1,269	2
Newcastle	611,880	1,484,822	11,865	1,496,687	2,108
Port Macquarie	....	1,168	....	1,168	1
Richmond River (Ballina)	2	....	17	17	
Tweed River	460	32	1,535	1,567	2
Wollongong	....	94,925	....	94,925	94,
Total £	17,435,839	12,210,070	6,030,541	18,240,611	35,676
OVERLAND.					
Albury	614,779	483,39	59,086	542,225	1,157,
Barringun	227,292	10,184	8,519	18,703	245,
Boggabilla	96,493	24,315	....	24,315	120,
Bourke (Inland)	9,089	49	4,436	4,485	13,
Brewarrina (Inland)	....	....	42	42	
Cobram	23,033	40,304	1,381	41,685	64,
Corowa	69,815	200,967	2,491	203,458	273,
Delegate	206	....	....	....	
Euston	3,729	44,042	4	44,046	47,
Genoa	12	....	....	....	
Howlong	6,947	14,492	162	14,654	21,
Moama	251,390	603,173	4,257	607,430	858,
Mulwala	53,530	97,898	63	97,961	151,
Mungindi	38,762	....	....	....	38,
Swan Hill	15,280	358,794	76	358,870	374,
Tocumwal	49,383	138,063	8,244	146,307	195,
Tweed Heads	8,706	....	....	....	8,
Wallangarra	217,749	44,308	85,172	129,480	347,
Wentworth	73,501	528,157	1,327	529,484	602,
Wilcannia (Inland)	60,694	....	176	176	60,
Willyama (Broken Hill)	928,536	1,905,547	61,681	1,967,228	2,895,
Other Crossing-places (Live Stock)	376,745	39,189	....	39,189	415,
Total £	3,125,671	4,532,621	237,117	4,769,738	7,895,
Grand Total £	20,561,510	16,742,691	6,267,658	23,010,349	43,571,

TRADE OF AUSTRALASIAN COLONIES.

The trade of New South Wales is larger in gross amount than that of any of the other colonies of Australasia, but it is exceeded by the commerce of Western Australia and South Australia in value per head of population. The total trade of each colony for 1880, 1890, and 1896 is given in the following table, and though the last year was one of depression as compared with 1890 and 1891, the magnitude of the trade, not only of this colony but of the rest of the group, is very suggestive. It will be seen that the trade of Victoria ranks second in value, and that of the other colonies in the following order :—New Zealand, South Australia, Queensland, Western Australia, and Tasmania.

Colony.	1880.	1890.	1896.
	£	£	£
New South Wales	29,858,865	44,660,941	43,571,859
Victoria	30,511,453	36,220,237	28,753,355
Queensland	6,535,456	13,621,212	14,596,997
*South Australia	11,156,003	17,328,301	15,006,585
Western Australia	852,852	1,546,260	8,143,783
Tasmania	2,881,154	3,384,504	2,688,986
New Zealand	12,514,703	16,072,245	16,458,425
Australasia	94,310,486	132,833,700	129,219,990

* Including Northern Territory.

IMPORTS.

During 1896, the gross value of goods imported into the colony amounted to £20,561,510, or at the rate of £15 19s. 4d. per head; the imports for home consumption were valued at £14,293,852, or £11 2s. per head of the mean population during the year, showing an increase on the previous year of £3 6s. 5d. per head of gross imports, and of £2 16s. per head of net imports. In 1891, the gross imports averaged £22 3s. 11d. and the imports for home consumption £18 19s. 9d.; but from that year the values per head of population steadily declined, the figures for 1895 being the lowest reached during the thirty-six years that had elapsed since the colony was restricted to its present boundaries. The falling off was due to two chief causes—first, to the large diminution in public and private borrowings ; and, second, to the fall in prices, which has extended to nearly all the commodities that the colony imports. In 1896, however, the imports per head of population were considerably higher than those for the preceding three years.

The value of the imports per inhabitant, distinguishing those for home consumption from the total imports, was as follows for the years shown:—

Year.	Imports for home consumption.	Total Imports per head.	Year.	Imports for home consumption.	Total Imports per head.
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
1870	12 7 8	15 16 6	1890	16 0 8	20 0 6
1875	19 14 10	23 9 11	1891	18 19 9	22 3 11
1880	15 4 9	19 9 0	1892	13 19 2	17 11 7
1885	18 19 8	25 12 0	1893	10 2 11	14 19 2
1886	16 2 3	21 19 8	1894	8 19 11	12 15 5
1887	13 10 8	19 1 7	1895	8 6 0	12 12 11
1888	13 16 2	20 9 11	1896	11 2 0	15 19 4
1889	16 3 10	21 8 9			

For the purpose of more readily understanding the nature of the imports, they have been classified under certain leading heads, and during 1896 the value of each class was as shown below:—

Classification.	Total Imports.	Imports for home consumption.
	£	£
Food and beverages, including breadstuffs	3,474,427	2,981,917
Wines, fermented and spirituous liquors	687,804	604,274
Live stock	980,891	890,000
Animal and vegetable products, including wool	3,368,662	1,476,500
Clothing and textile fabrics	4,170,825	3,784,683
Minerals and metals, raw or partly worked up, including silver bullion, lead, and ore	1,333,538	888,297
Coal and coke	137,989	137,989
Specie and gold bullion	2,482,409	281,221
Articles of education, art, amusement	922,812	771,671
Manufactured articles not elsewhere included	2,503,539	2,109,707
Unclassified articles	498,614	367,593
Total value £	20,561,510	14,293,852

The import of coal and coke during 1896, amounting to £137,989 as shown above, consisted almost entirely of coke required for smelting purposes at Broken Hill.

During 1896 the colony imported food and drink for its own consumption to the value of £3,586,191, or at the rate of £2 15s. 9d. for each inhabitant, and manufactured goods to the amount of £6,666,061, or at the rate of £5 3s. 6d. per head, together representing £7 19s. 3d. per head, out of a total of £11 2s. The three principal items of the balance are live stock, animal and vegetable products, and minerals and metals raw or partly worked up. Of the animal and vegetable products, as also of the minerals and metals, some portion is worked up in the colony for local requirements; but the greater portion of the gold imported is treated at the Mint, and re-exported in the shape of coin. The value per head of some of the principal articles imported for home consumption during the last five years is given below:—

Articles.	1892.		1893.		1894.		1895.		1896.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Apparel—Wearing, and gloves	20	5	12	9	12	10	13	9	15	1
Beer and ale	5	7	4	5	3	11	3	4	3	9
Boots and shoes	7	3	5	7	4	4	4	3	5	4
Drapery	32	7	25	1	23	9	28	0	28	0
Grain, pulse, etc.—										
Flour	8	3	3	8	3	4	2	3	7	7
Wheat	3	2	1	3	0	5	0	11	7	11
Oats	2	5	2	6	1	1	1	2	1	6
Hardware	9	11	5	1	2	4	2	8	3	4
Iron and steel—										
Manufactured wrought	4	2	2	10	2	5	3	3	4	1
Wire (black and galvanized)	3	5	1	7	1	5	1	2	1	11
Galvanized sheets and bars	3	11	2	7	2	10	2	0	2	5
Live stock—										
Horned cattle	8	6	8	0	4	9	4	2	7	8
Horses	2	9	1	10	1	9	1	3	1	3
Sheep	3	10	5	0	3	2	2	3	4	8
Machinery	4	2	2	4	2	0	2	5	6	1
Paper, books, etc.	6	5	5	5	5	0	5	7	4	9
Spirits	6	2	5	7	4	8	4	7	4	8
Sugar	7	4	5	9	8	5	6	5	7	2
Tea	5	11	4	10	5	1	4	6	3	4
Timber (dressed and rough)	7	3	5	2	4	6	4	7	4	11
Tobacco, cigars, and cigarettes	3	2	2	3	1	10	2	8	2	6

The import of drapery stands first in the list of values, and if wearing apparel be added to it the value of these goods would represent a sum of £2 3s. 1d. per head during 1896, the greatest amount for any one year having been in 1882, when the value imported reached almost £5 for every inhabitant. The value per head in 1896 of iron and steel, machinery, and hardware combined, was 17s. 10d.; wheat and flour, 15s. 6d.; intoxicants, 9s. 5d., of which the value of spirits was 4s. 8d. and of beer 3s. 9d.; sugar, 7s. 2d.; tea, 3s. 4d.; paper, books, etc., 4s. 9d.; and boots and shoes, 5s. 4d. None of the other values reach such large figures except those for live stock and timber, though many other articles form individually very important items. Two things are plain from a consideration of this table—the great purchasing power of the people, though now greatly reduced compared with what it was ten years ago, and the very large scope that exists for the production of goods which are now imported, and for the extension of manufactures within the colony. This will, perhaps, be seen more clearly from the gross values of some of the principal articles imported during the year 1896, as given in the following table :—

Apparel, Wearing	£1,161,834
Arms and ammunition	129,346
Beer	260,664
Boots and shoes	381,233
Butter	85,606
Candles	59,840
Chaff and hay	238,849
Cement	47,805
Cutlery and grindery	76,195
Drapery	2,238,368
Drugs and apothecaries' ware	166,696
Fancy goods and toys	152,077
Fish, Preserved	98,621
Flour	536,460
Fruit, Bottled, dried, and green	367,272
Furniture and upholstery	84,920
Glass and glassware	77,219
Grain and pulse	820,984
Hardware	261,190
Iron and iron manufactures and machinery	1,282,562
Jams and jellies	24,463
Jewellery and precious stones	105,858
Leather	81,502
Live stock	£980,891
Malt and hops	130,368
Matches	50,613
Milk, Condensed	59,997
Musical instruments	82,850
Oils—mineral and vegetable	198,057
Paints, paperhangings, lampware	119,848
Paper, books, stationery etc.	355,515
Pickles, sauces, and oilmen's stores	75,379
Potatoes and other vegetables	266,135
Saddlery and harness and saddler's ware	49,222
Silver plate and ware	69,138
Skins and hides	325,199
Spirits	346,018
Sugar	531,794
Tea	288,184
Timber	335,827
Tinplates	70,669
Tobacco, cigars, and cigarettes	231,937
Watches and clocks	41,981
Wine	61,171

The value of the imports into New South Wales, distinguished under the main countries of origin, for 1870 and subsequent periods ending with 1896, was as undernoted :—

Year.	United Kingdom.	Australasian Colonies.	Other British Possessions.	Foreign States.	Total.
	£	£	£	£	£
1870	3,200,706	3,677,927	573,462	832,283	8,284,378
1875	6,062,226	5,878,751	867,252	926,904	13,735,133
1880	6,536,661	5,945,788	539,334	1,154,280	14,176,063
1885	11,885,597	8,595,429	818,689	2,437,746	23,737,461
1886	10,445,980	8,085,584	621,507	2,160,056	21,313,127
1887	7,998,568	9,017,035	549,345	1,606,369	19,171,317
1888	9,212,981	9,085,567	736,224	2,194,505	21,229,277
1889	8,736,478	10,647,312	814,718	2,664,549	22,863,057
1890	8,628,007	10,981,721	663,325	2,341,951	22,615,004
1891	10,580,230	11,127,178	766,947	2,909,042	25,383,397
1892	8,883,983	9,201,193	577,707	2,113,643	20,776,526
1893	7,218,124	8,895,787	565,491	1,427,633	18,107,035
1894	5,983,489	7,794,168	608,356	1,415,928	15,801,941
1895	6,420,107	7,321,668	611,021	1,639,619	15,992,415
1896	7,190,115	9,559,860	625,164	3,186,371	20,561,510

The question of the trade with different countries will be returned to later on in this chapter. It may here be pointed out that the Customs returns do not enable goods to be traced to their place of origin—merely to the place where they are shipped. A larger trade is maintained by the colonies with foreign States than would appear from the foregoing table, as the products of these States are sent to Australia by way of Great Britain. The imports set down as coming from the other Australasian colonies include the British and foreign goods introduced into New South Wales overland from Victoria and South Australia.

EXPORTS.

The export trade of New South Wales, like the import, is larger than that of any other Australasian colony. For the reasons which will hereafter appear, until 1890 the exports usually fell short of the imports; but for the last six years this condition of things has been reversed, for the exports exceeded the imports by £560,623 in 1891, £1,195,721 in 1892, £4,814,188 in 1893, £4,775,732 in 1894, £5,942,370 in 1895, and £2,448,839 in 1896. Compared with those of other colonies, the extent of the New South Wales exports of home produce is very satisfactory, as will be evident at a glance at the subsequent table, which shows the total export trade in domestic produce, and the amount per head of the population, of each of the Australian colonies during the year 1896. It will be seen that, in point of value per head of population, New South Wales takes third place in the list:—

Colony.	Total Exports of Domestic Produce.	Per Head of Population.		
	£	£	s.	d.
New South Wales	16,742,691	13	0	0
Victoria	11,054,824	9	7	8
Queensland	8,924,186	19	2	9
South Australia	3,416,140	9	10	5
Western Australia	1,603,748	13	8	3
Tasmania	1,473,429	9	0	3
New Zealand	9,177,336	12	19	10
Australasia £	52,392,354	12	4	9

There is a defect in these figures, as far, at least, as two of the colonies are concerned. Victoria and South Australia have each a large re-export trade, especially in raw produce, and it frequently happens that credit is taken for the produce of other colonies in the returns showing their export of home produce. New South Wales was formerly over-credited with gold received from Queensland for coinage, and is still, to some extent, with tin and copper imported from Queensland and South Australia, and with cattle from the northern colony. To what extent the Customs value of home produce is overstated in Victoria and South Australia is unknown, but much of the New South Wales produce passing through Victoria for shipment to England is exported as Victorian produce, especially wool, of which large quantities shipped from the neighbouring colony as home produce are really the production of New South Wales. How far this system obtains in other directions it is impossible to say.

Dividing the exports of New South Wales into two classes—those which are the produce and manufacture of the colony, and those imported from other countries—the preponderance of home produce exported is very marked. The value of the domestic exports in 1896 was more than twice that in 1872, and, speaking generally, the expansion has been of a steady character. Wool constitutes the largest item of domestic export, and any fluctuation in the production or market value of the staple is plainly marked in the whole trade. The decline in the value of domestic exports between 1880 and 1886, which the following table shows, is to a great extent due to the fall in the price of wool, and to the losses brought about by the succession of dry seasons. The exports of produce other than that of the colony also show a decline about this period, ascribable in part to the causes which affected the general exports, and to the establishment of direct communication between Great Britain and Queensland and Tasmania:—

Year.	Domestic produce exported.		Other produce exported, including gold.	Total Exports.
	Gold.	Commodities.		
	£	£	£	£
1872	1,242,926	5,964,621	3,276,109	10,483,656
1873	1,962,094	7,694,202	3,108,578	12,764,874
1874	577,789	8,408,483	3,471,703	12,457,975
1875	635,448	9,374,156	3,787,793	13,797,397
1876	368,464	9,102,099	3,590,849	13,061,412
1877	663,552	8,880,570	3,913,778	13,457,900
1878	609,121	9,016,558	3,508,726	13,134,405
1879	....	10,079,317	3,052,614	13,131,931
1880	....	12,007,931	3,674,871	15,682,802
1881	710,412	11,244,865	4,352,528	16,307,805
1882	566,516	12,623,435	4,487,404	17,677,355
1883	502,517	15,625,835	4,133,921	20,262,273
1884	73,593	13,989,634	4,514,063	18,577,290
1885	71,539	11,987,741	4,690,827	16,750,107
1886	24,918	11,558,311	4,134,708	15,717,937
1887	34,184	14,206,128	4,281,438	18,521,750
1888	165,540	15,516,852	5,237,738	20.920.130
1889	321,731	17,378,662	5,594,541	23,294,934
1890	137,169	17,095,556	4,813,212	22,045,937
1891	1,296,093	19,789,619	4,858,308	25,944,020
1892	11,486	17,695,616	4,265,145	21,972,247
1893	25,885	17,068,328	5,827,010	22,921,223
1894	325,302	15,579,659	4,672,712	20,577,673
1895	1,063,558	15,372,652	5,498,575	21,934,785
1896	1,699,549	15,043,142	6,267,658	23,010,349

The value of New South Wales produce exported during 1891 largely exceeded that of any other year. As already shown, a portion of the trade would have been transacted in the previous year if the maritime strike had not occurred; but, after allowing freely for the increase due to this circumstance, the value would still have been the largest in the history of the colony. The table just given shows a notable rise in the value of domestic produce exported during 1889, which was well sustained until 1893. This may be attributed in the first place to a fortunate succession of good seasons, and in the second to the production of silver, which became an important article of export in the year named. The large decrease in 1894 is fully accounted for by the fall in prices, the depression preventing such increased production as would have had the effect of sustaining the total export value. In 1895 and 1896, however, there was a further slight fall, although the average price of the commodities produced in the colony was higher than in 1894.

In the presentation of the figures relating to the export trade, it will be seen that the value of commodities has been separated from that of gold, the export of gold the produce of the colony being taken to be the excess of the total export of coin over the total import of coin and bullion. Where there was no such excess the whole of the gold exported has been classed as other than domestic produce. Below will be found the value of the trade per inhabitant, the subdivision being the same as that adopted for the previous table:—

Year.	Domestic produce exported.		Other produce exported, including gold.	Total Exports.
	Gold.	Commodities.		
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1872	2 7 2	11 6 7	6 4 6	19 18 3
1873	3 12 1	14 2 7	5 14 2	23 8 10
1874	1 0 6	14 18 0	6 3 0	22 1 6
1875	1 1 9	16 0 8	6 9 7	23 12 0
1876	0 12 3	15 1 3	5 18 10	21 12 4
1877	1 1 1	14 2 5	6 4 6	21 8 0
1878	0 18 6	13 14 2	5 6 8	19 19 4
1879	....	14 11 10	4 8 5	19 0 3
1880	....	16 9 7	5 0 10	21 10 5
1881	0 18 7	14 13 11	5 13 10	21 6 4
1882	0 14 2	15 16 2	5 12 5	22 2 9
1883	0 12 0	18 12 10	4 18 8	24 3 6
1884	0 1 8	15 16 10	5 2 2	21 0 8
1885	0 1 7	12 18 7	5 1 2	18 1 4
1886	0 0 6	11 18 6	4 5 3	16 4 3
1887	0 0 8	14 2 9	4 5 3	18 8 8
1888	0 3 2	14 19 8	5 1 2	20 4 0
1889	0 6 0	16 5 11	5 4 11	21 16 10
1890	0 2 6	15 10 4	4 7 4	20 0 2
1891	1 2 8	17 6 1	4 5 0	22 13 9
1892	0 0 2	14 19 7	3 12 2	18 11 11
1893	0 0 5	14 2 0	4 16 4	18 18 9
1894	0 5 3	12 11 10	3 15 6	16 12 7
1895	0 16 10	12 3 2	4 6 11	17 6 11
1896	1 6 5	11 13 7	4 17 4	17 17 4

Judged by the volume of its exports per inhabitant, New South Wales compares favourably with any other country whose commerce is at all considerable, as an export of from £16 to £24 can only be paralleled by some few countries, such as Belgium, whose trade is largely made up of re-exports. For the twenty-five years covered by the foregoing statement the exports per inhabitant averaged £19 19s. 6d., falling as low as £16 4s. 3d. in 1886, and reaching £24 3s. 6d. in 1883. Excluding, however, all but domestic produce, the average value of commodities exported was £14 9s. 9d. per inhabitant, and including gold locally produced, £15 1s. 6d. If the prices of commodities had remained constant from year to year, the value of domestic exports would have afforded a ready means by which the progress of productive enterprise might be gauged. Allusion has been made on several occasions in this chapter to the fall in the prices of the great staple exports, and taking all commodities into consideration, the fall during the last twenty-five years has been over 41 per cent., the most serious decline occurring since the year 1884. As the question of prices is reviewed at length elsewhere in the chapter on "Food Supply and Cost of Living," it will here suffice to give the price-level for various years which are there established :—

Year.	Price-level. 1896 prices=1,000.	Year.	Price-level. 1896 prices=1,000.
1872	1,706	1885	1,404
1873	1,808	1886	1,350
1874	1,792	1887	1,387
1875	1,787	1888	1,346
1876	1,692	1889	1,367
1877	1,552	1890	1,321
1878	1,545	1891	1,200
1879	1,604	1892	1,136
1880	1,574	1893	1,028
1881	1,562	1894	927
1882	1,613	1895	951
1883	1,613	1896	1,000
1884	1,599		

Applying the figures just given to the value of commodities as ascertained on page 123, and adding the value of locally-won gold exported, the comparative value of domestic exports for each year is arrived at, on the supposition that the prices of 1896 were obtained during the whole period. The results are as stated in the following table :—

Year.	Value per Inhabitant of Domestic Exports, including Gold, on the basis of 1896 prices.	Year.	Value per Inhabitant of Domestic Exports, including Gold, on the basis of 1896 prices.
	£ s. d.		£ s. d.
1872	9 0 0	1885	9 5 8
1873	11 8 4	1886	8 17 2
1874	9 6 9	1887	10 4 6
1875	10 1 2	1888	11 5 10
1876	9 10 3	1889	12 4 5
1877	10 3 1	1890	11 17 5
1878	9 16 0	1891	15 11 1
1879	9 2 0	1892	13 3 11
1880	10 9 5	1893	13 14 9
1881	10 6 9	1894	13 16 11
1882	10 10 2	1895	13 12 5
1883	12 3 2	1896	13 0 0
1884	9 19 10		

For the whole period the average exports per inhabitant, computed on 1896 prices, amounted to £12 2s. 2d. For the first period of five years the average was £11 11s. 2d. ; for the second five years, £10 11s. 1d. ; for the third five years, £10 7s. 7d. ; for the fourth five years, £12 13s. 5d. ; and for the last five years £13 19s. 8d. These figures cannot but be looked upon as highly satisfactory, and afford ample evidence that the most productive period in the colony's history was the five years that closed with 1896.

Increase of Production.

Under the present conditions of development of the colony, the export of domestic produce is a very fair indication of its progress in productive pursuits. In the following table the average export of domestic produce per annum is given for the period which elapsed between 1870 and the close of 1896 ; but in order that they may be more easily grasped, as well as to avoid the irregularities of individual years, the figures have been grouped in series of five years. Besides the export of domestic produce, the table shows the average sum paid as interest on loans raised in England, and as earnings of investments held by non-residents. The difference between the two sets of figures represents the amount available for the purchase of goods, which come to the colony as imports. The bearing of the last two columns will presently appear :—

Period.	Average Exports of Domestic Produce per annum.	Average sum paid per annum as Interest on Loans raised in England and as Earnings of Investments held by non-residents.	Excess of Exports of Domestic Produce over Interest on Loans and Earnings of Investments by non-residents.
	£	£	£
1870-74	7,874,800	1,806,800	6,068,000
1875-79	9,745,900	1,883,400	7,862,500
1880-84	13,468,900	2,289,000	11,179,900
1885-89	14,253,100	3,838,000	10,415,100
1890-94	17,804,900	5,163,900	12,641,000
1895-96	16,589,500	4,856,000	11,733,500

With the exception of the two years 1895–96, the figures just given show a continuous increase in the exports from period to period, notwithstanding the great fall in prices which has taken place. Against this it may be urged that there has been an increase in population, and in order that the comparison may be exactly on the same lines the following table has been compiled. The figures show the export of domestic produce per head, as well as the average sum paid as interest on loans raised in England and as earnings of investments held by non-residents, the excess of domestic exports over interest on loans and earnings of absentee capital, and the last figures reduced to the level of 1870–74 prices :—

Period.	Average Exports of Domestic Produce per annum.	Average sum paid per annum as Interest on Loans raised in England and Earnings of Investments held by non-residents.	Excess of Exports of Domestic Produce over Interest on Loans and Earnings of Investments held by non-residents.	Excess of Exports reduced to the common level of 1870-74 prices.
	£	£	£	£
1870-74	15·0	3·5	11·5	11·5
1875-79	15·4	3·0	12·4	13·2
1880-84	16·8	2·7	14·1	15·4
1885-89	14·2	3·8	10·4	13·2
1890-94	15·2	4·4	10·8	16·7
1895-96	13·0	3·8	9·2	16·4

It will be seen that although during the twenty-seven years covered by the tables the annual export of domestic produce has risen from £7,874,800 to £16,589,500, in value per head of population it was £2 less in 1895-96 than during the period extending from 1870 to 1874. The average sum paid by the colony to its outside creditors has increased from £1,806,800 to £4,856,000 per year, or from £3·5 to £3·8 per head. The surplus available to pay for imports has risen from £6,068,000 to £11,733,500. Presented as the average per inhabitant, the amount shows a decrease from £11·5 to £9·2; but when stated in terms of the prices obtained in 1870–74, the excess of exports per head shows an increase of more than 42 per cent.—that is to say, from £11·5 to £16·4 per head.

It will be gathered from the foregoing figures that in spite of the large and increasing amount which the colony owes to its outside creditors, and the great fall in prices, the export of domestic produce available to pay for imports shows but little decline, while if prices had remained stationary during the whole period there would have been an increase during the last two years as compared with the first five years of £4·9 per head. The natural satisfaction to which the figures give rise extends to the whole period with the exception of the five years from 1885 to 1889.

An interesting question has been raised as to the effect of the import of British capital on the productive enterprises of the country. The figures available in regard to production do not enable a comparison to be made for the whole period from 1870 to the present time, but making use of the export figures already quoted, and those given in the part of this work relating to "Private Finance," the following comparison is obtained:—

Period.	Average Export of Domestic Produce per annum.			Average Import of Capital per annum.	
	Total.	Per inhabitant.		Total.	Per inhabitant.
		At actual prices.	At 1870-74 prices.		
	£	£	£	£	£
1870-74	7,874,800	15·0	15·0	921,200	1·8
1875-79	9,745,900	15·4	16·4	2,966,200	4·7
1880-84	13,468,900	16·8	18·4	4,170,800	5·0
1885-89	14,253,100	14·2	18·0	6,482,400	6·5
1890-94	17,804,900	15·2	23·6	2,981,800	2·5
1895-96	16,589,500	13·0	23·2	*44,000	*0·03

* Net export of capital.

The average value of domestic exports, when reduced to the comparative basis of 1870–74 prices, shows £23·2 per head in 1895–96 as against an average of £15 in 1870–74, being an increase of more than 54 per cent. The five years which ended with 1879 show an average export of £15·4 per head, which is equal to £16·4 on the 1870–74 prices; the five years ending with 1884 show £16·8 per head, equal to £18·4 on the 1870–74 prices; the five years ending in 1889 show £14·2 per head, equal to £18 on the same basis; while the five years which ended with 1894 show £15·2 per head, equal to £23·6 on the 1870–74 prices. In the last two columns of the table just given will be found the average import of capital during each series, and it would seem that during the five years which closed with 1889 an average of £6,482,400 was imported during each year—that is to say, about £6·5 per head. The deduction to be drawn from the foregoing figures is that the years in which an undue importation of capital took place compare unfavourably as regards production with other years in which there was a more moderate import, the lowest point of production being reached in the years when the largest amount of British capital was brought to the country, and the highest during those years in which a very much reduced amount of capital reached these shores.

ARTICLES OF EXPORT.

Wool is the staple export of the colony, and comprises considerably more than half the value of the domestic exports. The quantities and values of the wool exported since 1870 are given in the next table, and from the figures it will readily be seen how greatly the colony depends for its prosperity upon the produce of its flocks. The weights given represent the actual exports of New South Wales wool, washed and greasy being taken together :—

Year.	Weight.	Value.	Year.	Weight.	Value.
	lb.	£		lb.	£
1870	47,440,610	2,741,141	1890	236,322,828	8,991,396
1875	87,534,280	5,651,643	1891	331,887,720	11,036,018
1880	154,871,832	8,040,625	1892	312,225,293	10,211,456
1885	168,151,659	7,246,642	1893	318,782,858	9,675,061
1886	173,985,640	7,028,596	1894	331,774,424	9,011,790
1887	216,450,342	8,911,155	1895	297,448,104	8,958,690
1888	235,848,944	9,089,776	1896	272,033,262	8,776,529
1889	261,853,484	10,620,636			

Besides the clip of the colony, there has been a large export of other wool, chiefly the produce of Queensland. In 1885 the export of foreign wool amounted to slightly more than 10,000,000 lb. weight, valued at £429,399 ; but the returns for the next six years showed a great decrease on these figures. In 1892 the export again exceeded 10,000,000 lb. in weight ; while in 1896 it amounted to 34,791,096 lb., valued at £1,120,803. The exports as returned by the Customs are given herewith ; but the quantities fall short of the actual amounts, as not a little wool, the produce of other places, was exported in past years as New South Wales wool—on the same principle, probably, that led to the shipment in 1896 from Melbourne, as the produce of Victoria, of over 53,000,000 lb. weight of wool, the bulk of which was grown in New South Wales :—

Year.	Weight.	Value.	Year.	Weight.	Value.
	lb.	£		lb.	£
1880	7,614,490	431,605	1891	8,803,662	276,962
1885	10,221,766	429,399	1892	10,826,721	328,691
1886	4,664,971	173,380	1893	26,200,018	774,850
1887	7,844,867	288,916	1894	22,391,022	616,333
1888	7,407,309	268,739	1895	32,544,571	1,017,354
1889	4,375,545	164,434	1896	34,791,096	1,120,803
1890	7,415,438	241,276			

The export of domestic wool in 1891, both as regards value and quantity, was the highest ever attained, the increase over the previous year being 95,564,892 ℔., valued at £2,044,622. A large portion of this advance, however, was not due to increased production, but to the circumstance that in 1890 the growers were unable to get part of their produce to market by reason of the general strike to which reference has already been made. Considered in this light, the decrease in 1892, as compared with 1891, of 19,662,427 ℔., of the value of £824,562, is more apparent than real. In 1894, however, the domestic export nearly reached the quantity shipped in 1891, being only 113,296 ℔., less; but it is a striking illustration of the fall in prices to find the value £2,024,228 less than in that year. During the next two years the seasons were unpropitious, and the export fell to 297,448,104 ℔. in 1895 and 272,033,262 ℔. in 1896. There was, however, a slight rise in the price during these years, and the values were, therefore, not reduced to a corresponding extent.

A marked feature of the wool trade of recent years has been the growing disposition shown by buyers on the Continent of Europe to purchase their supplies direct from the colony instead of obtaining them through the London brokers. Year by year the representatives of foreign manufacturers who visit Sydney for the purpose of attending the wool sales become more numerous. Seventeen years ago all the wool destined for Europe may be said to have found its way to London, while in 1896 the shipments to Belgium, France, Germany, and Italy of the staple of local growth amounted to 73,175,615 ℔., valued at £2,372,729. The growth of a direct trade with the Continent is desirable, both in the interest of the foreign consumer and in that of the grower, as the profit of the middleman, as well as the cost of additional carriage and handling, is thereby saved. The following table shows the steady increase in the quantity of domestic wool shipped direct to the Continent during the past twelve years:—

Year.	Quantity.		Value.
	Weight.	Proportion of Total Domestic Export.	
	lb.	per cent.	£
1885	14,734,724	8·8	486,693
1886	17,307,973	9·9	537,472
1887	22,009,275	10·2	715,084
1888	29,023,106	12·2	906,526
1889	35,933,721	13·7	1,285,494
1890	42,300,222	17·9	1,509,686
1891	64,207,855	19·3	1,838,740
1892	85,334,191	27·3	2,568,685
1893	88,858,560	27·9	2,629,322
1894	98,316,430	29·7	2,627,658
1895	91,320,974	30·7	2,688,846
1896	73,175,615	26·9	2,372,729

There was formerly a disposition to export washed wool. The tendency is now, however, towards the export of wool in grease, except where the conditions as to carriage, etc., are exceptional. Further reference to the wool trade will be found in the chapter relating to pastoral pursuits.

The other animal products—tallow, skins, leather, and such like—form together an export of considerable value, the shipments of tallow especially having largely increased during the past few years.

The number and value of the live stock exported have varied considerably from year to year, being affected greatly by the seasons experienced both in this colony and in the neighbouring provinces. The export of horses has increased both in number and in value; and the same may be said of the imports, though it should be borne in mind that the figures in respect to horses are to some extent misleading, as the number of thoroughbred racing animals passing backwards and forwards between Sydney and Melbourne, which are entered as exports and imports, gives more importance to the trade than its magnitude really warrants.

In 1896 the export of horned cattle declared to be the produce of New South Wales amounted to 29,448 head, valued at £152,128, and the import to 268,428, valued at £564,588. The export of sheep during the year was 726,400, worth £242,283; and the import reached 1,010,176 in number, and in value, £317,909. But, as in the case of horses, the figures for the export and import of other live stock are to a certain extent misleading, inasmuch as the returns are swollen by the inclusion of stock sent from one colony to another in the hope of obtaining better pasturage, or for fattening or breeding purposes. The general tendency of the trade in 1896 may, however, be gathered from the table below, the export figures comprising both home-reared and other stock:—

Live stock.	Imported.		Exported.	
	Number.	Value.	Number.	Value.
		£		£
Horses	6,918	82,990	8,212	127,083
Horned cattle	268,428	564,588	45,720	222,697
Sheep	1,010,176	317,909	744,578	258,952
Pigs	7,291	9,242	1,997	2,311
Other stock	....	6,162	....	1,705
Total	....	980,891	....	612,748

Coal also forms one of the staple exports of New South Wales, having been exported to the value of £900,264 in 1896, representing a volume of 2,474,907 tons. The development of the coal trade of the colony will be found traced in the chapter on "Mines and Minerals," and it will be seen that this product has been subject to less fluctuation than any other item of export.

The export of silver and silver-lead ore has become important since 1884 the figures for 1893 amounting to £3,031,720, although, in conseence of the great fall in the price of the metal, coincident with the sing of the Indian mints to free coinage, the export declined to ,289,489 in 1894; while in 1895, owing to a lengthy stoppage of rk at the principal silver mine, the export declined still further to ,648,103. In 1896, however, there was increased activity at some the mines, and the export reached a value of £1,785,451. The port of locally-produced copper and tin revived somewhat during 88, but has fallen off very considerably since. Cepper was exported 1896 to the value of £200,311, and tin to the extent of £102,117. ese figures are taken from the returns of the Customs department, t the amounts are swollen by ore from other Australasian colonies, rticularly from Queensland and South Australia, sent to be refined in w South Wales. The actual local production of copper and tin ring 1896 may be set down at £197,814 and £68,546 respectively. e production of the former metal is again on the increase.

Gold bullion and specie form one of the most important exports of the ony. The export during 1870 and subsequent periods was:—

Year.	£	Year.	£
1870	1,824,524	1890	2,289,022
1875	2,106,074	1891	3,732,894
1880	863,012	1892	2,263,661
1885	1,461,478	1893	2,995,777
1886	1,619,278	1894	2,308,264
1887	1,318,917	1895	3,145,557
1888	2,122,337	1896	3,886,490
1889	3,211,747		

Taken by itself, the foregoing statement might seem to favour the inion sometimes hazarded that the colony is being denuded of its ld. Such, however, is not the case. The gold shipped is chiefly the oduce of other colonies, sent to Sydney to be minted. The amount gold raised in the colony during 1896 was valued at £1,073,360, ile the domestic bullion and specie exported is estimated at ,699,549. This, however, was an exceptional year; usually only a ited quantity of the amount exported is of local production.

Divided into the classes adopted for the imports, the exports of home oduce in 1896 appear as follow:—

	£
Food and beverages, including breadstuffs	1,130,585
Wines, fermented and spirituous liquors	8,221
Live stock	521,857
Animal and vegetable products, including wool	10,009,791
Clothing and textile fabrics	37,111
Minerals and metals, raw or partly worked up, including silver bullion, lead, and ore	2,279,735
Coal and coke	905,244
Specie and gold bullion	1,699,549
Articles of education, art, and amusement	16,318
Manufactured articles not included elsewhere	110,947
Unclassified articles	23,333
Total	£16,742,691

By far the larger portion of the exports consists of raw mater As an export manufacturing country New South Wales has not achieved any position; and though its manufactures are not witl their importance, as will hereafter appear, its own markets furnisl wide a scope for manufacturing industry as to make it improbable there will be any great development of export trade in home manufact in the immediate future. So many channels have been presented the successful employment of capital that little attention has bestowed upon the possibility of New South Wales supplying o countries with its own manufactures; but as these outlets of ca are closed, the vast possibilities of the country in other directions doubtless be recognised. The following table has been prepared the view of showing the relative importance, and the value head of population, of the principal articles exported during the last years. The preponderance of raw material, and raw, material advan one stage towards the finished manufacture, will be apparent:—

Article.	1892.		1893.		1894.		1895.		1896.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Butter	1	3	2	1	2	5	0	11	1	7
Coal and coke	17	5	13	7	13	2	12	4	14	0
Copper	3	2	1	0	1	2	2	3	3	1
Fruit (Green)	1	10	2	3	1	8	1	1	1	7
Grain, pulse, etc.—										
Wheat	......		......		......		......		1	1
Maize	0	1	.....		......		0	1	0	1
Flour	0	3	0	3	0	1	0	2	3	0
Leather	3	0	3	3	3	9	4	5	5	1
Live stock—										
Cattle	2	11	3	3	1	9	1	10	2	4
Horses	3	4	1	8	1	6	1	6	1	11
Sheep	8	4	4	9	4	9	4	6	3	9
Meat	4	10	5	2	6	10	11	2	9	4
Shale (kerosene)	2	2	1	4	0	10	1	3	0	6
Silver bullion, lead, and ore	41	10	50	1	36	8	26	1	27	9
Skins and hides	11	8	10	2	6	7	9	8	5	3
Tallow	7	4	12	3	14	5	12	3	5	6
Timber (dressed and rough)	0	10	0	7	0	5	0	8	0	8
Tin	5	4	3	9	3	0	2	2	1	7
Wool	172	0	159	10	145	8	141	8	136	4

The total values of some of the principal articles of home produce exported during 1896 are as follow :—

	£		£
Butter	102,502	Meat	600,785
Coal and coke	904,787	Shale, Kerosene	32,846
Copper (net export)	197,814	Silver and ore	1,785,451
Flour	196,335	Skins	339,474
Fruit	100,092	Tallow	353,566
Grain and pulse	102,829	Timber	46,091
Leather	324,989	Tin (net export)	68,546
Live stock	521,857	Wool	8,776,529

RE-EXPORT TRADE.

The re-export trade of the colony increased considerably until 1889, but during the next few years a marked decline was experienced. In 1895 and 1896, however, an improvement was manifested, and the latter year showed a large increase on the previously highest total. The shipping facilities of Sydney at one time attracted to the port a large amount of trade from New Zealand, Queensland, and the South Seas, for transhipment to Europe; but the establishment of direct communication between those colonies and Europe checked to some extent the expansion of the re-export trade. The re-export trade overland is comparatively limited, amounting in 1896 to £237,117, out of a total of £6,267,658.

The total value of the re-exports of the colony, and the value of the gold bullion and specie included therein, during the periods mentioned, were as shown below. It will be seen that gold, consisting largely of Queensland metal coined at the Mint, and of specie shipped to London by the banks, forms a large proportion of the trade :—

Year.	Re-exports.			Gold Bullion and Specie included in the foregoing.
	Seaward.	Overland.	Total.	
	£	£	£	£
1870	2,886,267	8,210	2,894,477	1,491,893
1875	3,783,785	4,008	3,787,793	1,459,057
1880	3,626,991	47,880	3,674,871	838,115
1885	4,525,883	164,944	4,690,827	1,448,534
1886	3,999,328	135,380	4,134,708	1,588,756
1887	4,120,184	161,254	4,281,438	1,278,162
1888	4,684,752	552,986	5,237,738	1,944,327
1889	5,222,288	372,253	5,594,541	2,880,883
1890	4,626,606	186,606	4,813,212	2,289,022
1891	4,567,759	290,549	4,858,308	2,436,801
1892	4,145,912	119,233	4,265,145	2,263,661
1893	5,191,249	635,761	5,827,010	2,969,892
1894	4,518,505	154,207	4,672,712	1,982,962
1895	5,047,623	450,952	5,498,575	2,081,999
1896	6,030,541	237,117	6,267,658	2,186,941

The following table shows the value of the principal articles of other than domestic produce and manufacture exported during 1896 :—

	£		£
Apparel, Wearing	39,211	Iron and steel (*continued*)—	
Bags and sacks	38,789	Galvanised sheets and bars	54,604
Beer and ale	21,025	Leather	13,972
Boots and shoes	39,618	Live stock	90,891
Copper	4,788	Machinery	126,330
Copra	66,198	Meats	52,044
Drapery	243,120	Paper, books, etc.	49,297
Drugs, chemicals, etc.	56,065	Skins and hides	298,924
Flour	46,852	Spirits	46,747
Fruit, Fresh and dried	47,072	Sugar	72,889
Furniture and upholstery	15,161	Tallow	156,100
Gold specie and bullion	2,186,941	Tea	75,833
Hardware	48,564	Tin	53,507
Iron and steel—			
Manufactured wrought	33,432	Tobacco, cigars, and cigarettes	70,430
Wire—black and galvanised	18,616	Wool	1,120,803

Amongst raw materials the principal articles re-exported are tallow, skins and hides, copra, tin, and wool; while the manufactured articles are chiefly drapery, apparel, hardware, iron and steel, machinery, drugs and chemicals, books and stationery, boots, beer and spirits, tobacco, cigars and cigarettes, and also large quantities of provisions. Grouped under the several heads already adopted for the imports and exports, the value of the re-export trade for the year 1896 will be found below :—

	£
Food and beverages, including breadstuffs	492,510
Wines, fermented and spirituous liquors	83,530
Live stock	90,891
Animal and vegetable products, including wool	1,892,162
Clothing and textile fabrics	386,142
Minerals and metals, raw or partly worked up, including silver bullion, lead, and ore	445,241
Specie and gold bullion	2,201,188
Articles of education, art, and amusement	151,141
Manufactured articles not elsewhere included	393,832
Articles unclassified by Customs	131,021
Total	£6,267,658

OVERLAND TRADE.

As the major portion of the goods exported overland simply passes through the border colonies of Victoria and South Australia to Great Britain, the diversion of the trade along the railways of the colony to its ports must be looked upon as a distinct gain. It was believed that the extension of the trunk railways to the centres of the pastoral industry would have the effect of permanently diverting a not inconsiderable amount of trade from Victoria and South Australia, but it will be seen from figures in another part of this volume that such diversion has only been partial. The condition of the Darling and other western rivers exercises a marked influence on the overland trade, especially in wool;

t is found that when the rivers are not easily navigable a larger rtion of this staple reaches the eastern seaboard than is the case her seasons. A marked increase in the total trade will be noticed in and the following years, and in 1891 the value of the trade was than twofold that of the year first mentioned; but there was ge falling off in 1892, mainly owing to the strike at Broken the decline in the total value of imports and exports at the Wil- a Custom House alone amounting to no less than £1,988,961. was in no small degree due to the diminished requirements of the lation of the Broken Hill silver-fields, whose natural outlet is by of Adelaide, which is connected by rail with Broken Hill. The t revival in the overland trade in 1893 was due to the greater im- and exports of gold in consequence of the financial crisis; while ecline in the exports in 1894 and 1895 was chiefly caused by the fall in the price of silver in 1894, and by a fire in the workings of rincipal mine in 1895, which adversely affected the industry in the ier district; and in the imports, to a number of causes, amongst were a smaller import of live stock from Queensland and the still er contraction of the goods introduced for consumption at Broken

In 1896 the imports overland were in excess of those of the four ding years, the largest increase being in the imports from Victoria, about £525,000, of which £290,000 represents specie and the rest llaneous articles. Imports overland from Queensland show an se of £430,000, due entirely to live stock; and from South Aus- of £380,000, due to a revival in the Barrier trade. While the exports overland in 1896 remained at nearly the same figure as in the exports to Victoria showed an increase of £85,000, and those uth Australia of £225,000, while the exports to Queensland sed by £290,000, owing to the absence of large consignments of oin which were made during the preceding year.

Year.	Imports.	Exports.	Total.
	£	£	£
1870	1,071,087	2,177,813	3,248,900
1875	1,460,528	4,343,729	5,804,257
1880	1,438,155	4,768,542	6,206,697
1885	2,611,130	3,405,073	6,016,203
1886	2,039,168	4,251,800	6,290,968
1887	3,166,573	5,231,454	8,398,027
1888	3,040,010	5,559,681	8,599,691
1889	3,150,698	6,919,491	10,070,189
1890	4,707,341	8,026,376	12,733,717
1891	4,319,204	8,630,248	12,949,452
1892	2,928,417	6,034,211	8,962,628
1893	2,698,011	6,706,936	9,404,947
1894	1,788,654	5,222,089	7,010,743
1895	1,783,368	4,748,129	6,531,497
1896	3,125,671	4,769,738	7,895,409

TRADE WITH THE UNITED KINGDOM.

The trade with the United Kingdom holds a high position in regard to value, being until recent years even larger than the intercolonial trade of the colony; and even now, if to the value of goods coming direct from Great Britain were added that of goods passing through the neighbouring colonies, but destined for or coming from England, the proportion of British trade would still be higher; for, though the nominal trade between the United Kingdom and New South Wales amounted in 1896 to the large sum of £15,565,998 out of a total trade of £43,571,859, it is probable that the actual value of this trade was little short of £20,000,000. The amount of trade, as set down in the subsequent table, is, therefore, much below the truth, especially in regard to the exports, as the larger part of the produce exported to Victoria and South Australia overland is in reality destined for British ports. The seaward trade alone can be given, and this will be found in the following table, for 1870 and subsequent periods:—

Year.	Imports.	Exports.	Total British trade.
	£	£	£
1870	3,200,706	2,492,640	5,693,346
1875	6,062,226	6,374,503	12,436,729
1880	6,536,661	7,525,637	14,062,298
1885	11,885,597	7,293,133	19,178,730
1890	8,628,007	6,623,431	15,251,438
1891	10,580,230	8,855,465	19,435,695
1892	8,883,983	7,653,915	16,537,898
1893	7,218,124	8,269,507	15,487,631
1894	5,983,489	7,956,377	13,939,866
1895	6,420,107	9,371,418	15,791,525
1896	7,190,115	8,375,883	15,565,998

INTERCOLONIAL TRADE.

Even more considerable than the British trade in most years apparently stands the intercolonial, exceeding it in 1896 by no less than £2,368,688, the amount being £17,934,686. By far the larger part of this trade, however, must be credited to the United Kingdom, as the natural outlet for the produce of the Southern and Western districts is by way of Victoria and South Australia. Thus, out of £9,559,860 imported by New South Wales during 1896 from the Australasian colonies, goods to the value of £5,262,000 only, excluding gold, were the produce of the places from which they were received, and out of the

£8,374,826 exports only £1,745,000 were retained for local consumption by the colonies to which they were sent. The nominal value of the intercolonial trade since 1870 was as follows:—

Year.	Imports.	Exports.	Total trade.
	£	£	£
1870	3,677,927	3,837,680	7,515,607
1875	5,878,751	6,570,127	12,448,878
1880	5,945,788	7,381,172	13,326,960
1885	8,595,429	6,936,139	15,531,568
1890	10,981,721	11,284,740	22,266,461
1891	11,127,178	11,603,170	22,730,348
1892	9,201,193	8,917,677	18,118,870
1893	8,895,787	9,881,038	18,776,825
1894	7,794,168	8,243,954	16,038,122
1895	7,321,668	7,590,985	14,912,653
1896	9,559,860	8,374,826	17,934,686

The total intercolonial trade of the Australasian colonies with New South Wales increased largely from 1885 to 1891, due almost entirely to the trade which sprang up with the working of the Barrier silver mines. The province of South Australia lies between the western district of New South Wales and the sea, and practically the whole of the trade of the Broken Hill district passes through that province, and swells the volume of commerce credited to it. It will be seen from the following table, which distinguishes the seaward from the overland portion, that the exchange of commodities between New South Wales and the other colonies in 1896 was less than in any of the years 1887–93:—

Year.	Seaward.	Overland.	Total.
	£	£	£
1885	9,515,365	6,016,203	15,531,568
1886	9,500,481	6,290,966	15,791,447
1887	9,612,332	8,398,027	18,010,359
1888	10,100,491	8,599,691	18,700,182
1889	11,318,168	10,070,189	21,388,357
1890	9,532,744	12,733,717	22,266,461
1891	9,780,896	12,949,452	22,730,348
1892	9,156,242	8,962,628	18,118,870
1893	9,371,878	9,404,947	18,776,825
1894	9,027,379	7,010,743	16,038,122
1895	8,381,156	6,531,497	14,912,653
1896	10,039,277	7,895,409	17,934,686

As already pointed out, a great proportion of the intercolonial export trade, especially that which is sent overland, represents produce of New South Wales ultimately destined for European markets, though credited to the colony to which it is sent in the first instance. Similarly with the imports, a large part of the trade comprises goods which have originally come from Great Britain but have been purchased in the Melbourne and Adelaide markets, or are passing through those ports as being the nearest routes to their destination. It is estimated that the value of goods the produce of New South Wales consumed in the various colonies was £1,745,000 in 1896, and the value of the produce of the other colonies consumed in New South Wales, excluding coin and bullion, was £5,262,000. If from the value of New South Wales exports there be deducted £474,067, the apparent value of domestic live stock exported to the adjacent colonies, it will be seen that the Australasian markets consume a very small quantity of the goods of this colony.

VICTORIA.

Victoria came first amongst the colonies of the group, as regards its trade with New South Wales, until 1893, since which year the decline which has taken place in the value of the goods which it sends to this colony has caused it to rank below Queensland. It is estimated that prior to the extension of the railway system of New South Wales into the Riverine districts, nearly one-fourth of its territory, comprising some of its richest portions, traded almost exclusively with Victoria. This traffic has now, to a great extent, been diverted along New South Wales lines to Sydney; and the trade of the colony with Victoria, instead of increasing with the settlement of those districts, is declining. The following table shows the trade of the year 1870, and of subsequent periods up to 1896:—

Year.	Imports.	Exports.	Total.
	£	£	£
1870	1,153,695	2,583,552	3,737,247
1875	2,066,156	4,269,770	6,335,926
1880	2,187,119	4,578,867	6,765,986
1885	3,309,696	3,450,796	6,760,492
1890	2,097,259	5,386,553	7,483,812
1891	2,818,935	5,443,663	8,262,598
1892	2,432,399	4,278,907	6,711,306
1893	2,020,421	3,620,302	5,640,723
1894	1,583,206	3,129,663	4,712,869
1895	1,499,592	3,078,017	4,577,609
1896	2,115,721	3,296,451	5,412,172

The import trade of the colony with Victoria covers a large range of articles, and in this respect differs from the export, which mainly comprises three leading items of raw produce—wool, live stock, and coal. Dividing the imports from Victoria into two classes, viz., Victorian and other produce, the chief imports under the former class are agricultural implements, butter, breadstuffs, fruit, oats, hay and other fodder, and vegetables; while under the second head come drapery and apparel, drugs, hardware, iron, machinery, stationery, tea, raw sugar, and various manufactured articles. Victorian produce, properly so called, comes chiefly to Sydney; the other articles are taken by the southern and western portions of the colony, which have for many years looked to

Victoria as a market whence such supplies are to be derived. The following are the values of the principal items of import from Victoria during the last five years :—

Description of Goods.	1892.	1893.	1894.	1895.	1896.
	£	£	£	£	£
Agricultural implements	34,980	43,853	12,907	13,716	44,218
Bags and sacks	11,937	13,896	16,372	12,847	33,916
Beer (in wood and bottle)	21,242	18,611	15,218	12,785	14,875
Biscuits	1,386	745	711	584	1,036
Boots and shoes	17,271	12,111	10,459	12,249	27,446
Butter	7,774	3,346	2,711	61,453	34,101
Candles	3,878	4,351	3,120	1,885	3,535
Cheese	693	488	374	1,035	1,286
Cordage and rope	3,697	3,130	3,695	4,568	7,126
Drapery	143,492	92,151	110,435	121,163	139,300
Drugs and apothecaries' wares	14,934	12,786	10,440	11,497	18,905
Earthenware and china	4,919	5,681	5,400	2,889	5,151
Flour	318,598	153,430	130,093	66,598	13,366
Fruit—					
Green	19,959	14,062	14,254	17,905	29,429
Dried	6,352	6,312	7,885	7,271	7,777
Furniture and upholstery	11,235	7,280	6,679	9,432	22,074
Gold (coin, bars, and dust)	78,608	354,219	144,199	33,033	443,374
Grain and pulse—					
Wheat	144,583	41,536	20,152	27,033	25,072
Oats	8,867	17,001	3,992	2,099	3,801
Other	36,349	40,727	12,129	12,023	23,684
Hardware	46,151	44,746	24,187	28,961	31,706
Hay and chaff	173,022	150,290	83,218	87,586	66,340
Iron and steel goods	92,287	53,061	40,361	40,388	60,516
Jams and jellies	2,340	1,256	1,408	1,083	2,783
Jewellery	1,991	1,162	2,574	5,612	9,638
Lead	4,162	8,068	1,449	878	465
Leather	10,871	10,502	9,962	12,864	19,387
Live stock	246,350	160,461	165,475	128,741	126,965
Machinery	63,313	46,914	43,536	52,738	89,874
Malt and hops	33,155	35,820	18,848	29,534	22,046
Musical instruments	5,678	6,189	6,687	2,602	6,303
Oatmeal	15,561	14,651	12,195	11,461	13,099
Oilmen's stores	6,896	3,753	3,362	3,434	5,600
Oils	20,308	18,018	16,942	13,208	22,548
Paper, books, stationery, etc.	50,695	31,823	29,385	32,678	52,493
Potatoes	42,549	38,985	18,042	23,399	18,258
Saddlery and harness	6,978	5,004	4,486	4,202	6,444
Soap	7,604	8,619	8,290	7,082	9,871
Spirits	32,145	23,973	22,267	24,253	30,993
Sugar (raw)	61,408	49,672	86,793	59,269	63,064
Tea	121,452	60,674	78,618	57,077	36,676
Timber	24,920	13,741	13,335	19,034	20,896
Tobacco, cigars, etc.	27,352	16,982	15,831	17,357	17,369
Toys	5,521	4,319	614	978	629
Vegetables (green) and onions	28,307	25,363	28,121	25,409	37,188
Wearing apparel	76,006	65,927	61,927	57,436	81,751
Wines	6,182	3,593	3,484	4,805	3,661
Woolpacks	15,437	14,424	19,058	19,812	12,116

The chief export to Victoria is wool, forwarded to Melbourne for shipment to London and other European ports. A large quantity of this wool is shipped to Europe as the produce of Victoria, on account of the fact that better prices are generally obtained for "Port Phillip" wool. The value of wool exported to Victoria during 1870 and subsequent periods was as follows:—

Year.	£	Year.	£
1870	1,057,457	1892	2,518,459
1875	2,253,184	1893	2,210,198
1880	3,224,289	1894	2,030,645
1885	1,868,019	1895	1,958,643
1890	2,521,898	1896	1,936,025
1891	2,779,963		

The decrease shown since 1880 is chiefly owing to the decline in the market value of the staple, though it is also partly due to the extension of the railways, which has diverted much of the traffic from the old routes.

Live stock of all kinds form a large portion of the exports to Victoria, though the imports, especially of sheep, have also been valuable. Victoria has already reached the point where the demand for meat exceeds the cast of stock, and is, therefore, dependent upon the other colonies, especially New South Wales, for the supply of the deficiency, the amount of which is little short of one-fourth of the whole consumption. The sheep exported are almost entirely New South Wales produce; the cattle, however, are generally bred in Queensland, and fattened for market on runs in New South Wales.

Coal is next in importance as an export of this colony to Victoria, the value during 1896 being £250,622, which was far larger than the value of the trade in this staple with any other country. The only other article worthy of note is skins, which are sent to Victoria for re-export. The following table shows the export trade during the last five years:—

Description of Goods.	1892.	1893.	1894.	1895.	1896.
	£	£	£	£	£
Coal	394,591	314,000	252,200	256,137	250,622
Coin—gold	......	100,000	......	......	1,430
Drapery	36,203	26,675	22,242	33,416	48,740
Fish (preserved)	4,038	908	1,742	3,232	4,275
Fruit (fresh)	79,123	76,629	57,846	31,993	46,548
Kerosene shale	9,940	8,646	2,849	4,842	187
Live stock	782,245	260,475	330,310	293,106	363,579
Machinery	9,315	13,474	16,335	13,092	31,745
Periodicals, books, paper, etc.	13,190	9,399	8,353	6,650	9,974
Skins	90,398	175,378	115,378	104,536	104,798
Tea	47,674	6,909	6,628	11,916	13,519
Timber	34,597	27,465	16,597	16,172	7,354
Wheat and other grain	6,997	2,553	1,071	9,434	85,405
Wines	2,380	1,814	2,815	2,436	3,145
Wool	2,518,459	2,210,198	2,030,643	1,958,643	1,936,025

The articles comprised in the import trade are much more varied than the exports, although in point of value the latter are 50 per cent. in excess of the former.

About two-thirds of the exports to Victoria, as well as over one-half of the imports, cross the border. The value of the imports overland, however, fell greatly, from the causes already specified, during 1886, and although an improvement has been shown in some years, the trade increasing 73 per cent. during the period from 1885 and 1890, it has only been of a temporary nature, and the overland export trade is now only half of the value at which it stood in 1891. The value in 1870 and subsequent periods was :—

Year.	Imports.	Exports.	Total.
	£	£	£
1870	448,308	1,811,848	2,260,156
1875	945,049	3,546,674	4,491,723
1880	963,620	3,824,310	4,787,930
1885	1,555,139	2,450,444	4,005,583
1890	986,527	4,237,004	5,223,531
1891	1,088,012	4,184,219	5,272,231
1892	907,283	2,960,171	3,867,454
1893	912,956	2,486,282	3,399,238
1894	598,736	2,148,962	2,747,698
1895	570,440	2,104,591	2,675,031
1896	1,105,435	2,190,385	3,295,820

QUEENSLAND.

Amongst the colonies, Queensland now takes first rank in the value of its trade with New South Wales. The estimated amount of the imports and exports since 1870 is given hereunder. It is possible that the values are somewhat understated, as there is a good deal of trade in stock which does not come under the cognisance of the Customs officers. Though New South Wales and Queensland have a common boundary of 900 miles, the overland trade, except in live stock, is small.

Year.	Imports.	Exports.	Total Trade.
	£	£	£
1870	1,767,974	680,301	2,448,275
1875	2,521,312	1,238,226	3,759,538
1880	2,224,421	1,362,262	3,586,683
1885	2,913,588	2,174,266	5,087,854
1890	5,482,452	1,670,465	7,152,917
1891	4,303,520	1,063,780	5,367,300
1892	4,122,822	1,105,173	5,227,995
1893	4,746,152	1,599,898	6,346,050
1894	4,506,490	970,926	5,477,416
1895	4,011,776	1,416,257	5,428,033
1896	4,679,456	1,227,754	5,907,210

The imports from Queensland chiefly consist of gold, live stock, sugar, wool, tallow, and hides. Large quantities of gold are sent from Queensland to be minted at Sydney, there being no Mint in the northern colony. The value of wool imported during 1896 was £1,001,001, being entirely for re-export. Stock was imported to the value of £798,823, of which £523,408 represented cattle. The importation of cattle from Queensland mainly depends on the suitability of the season for travelling stock. As shown in the subjoined table, the figures for 1896 are in excess of those for the previous four years :—

Description of Goods.	1892.	1893.	1894.	1895.	1896.
	£	£	£	£	£
Boots and shoes	1,210	1,069	3,509	1,335	7,370
Drapery, apparel, etc. ...	17,113	7,966	10,898	12,467	17,630
Fruit (fresh)	17,497	32,691	17,647	42,282	52,926
Gold (bars and dust)......	2,190,477	2,155,843	2,392,785	1,693,663	1,758,811
Live stock	615,449	752,813	396,253	333,646	798,823
Maize	8,677	885	1,214	127	6,331
Oysters	10,856	7,416	2,360	2,910	3,853
Skins	139,800	164,719	146,533	240,581	276,642
Sugar (raw)	325,982	377,307	460,378	341,034	334,237
Tallow.........	106,710	144,126	249,516	294,504	158,396
Wool	473,428	783,276	566,503	906,691	1,001,001
Tin (ingots and ore)	107,852	104,163	80,864	42,484	29,863

Most of the goods imported from Queensland are for re-export, and of the total imported during 1896 goods to the value of £3,467,000, or more than 74 per cent., were not retained in the colony for home consumption. New South Wales is the chief external market for Queensland sugars and live stock, and there is a growing trade in fruit and other sub-tropical products.

The exports have varied greatly in value from year to year from causes similar to those affecting the imports; they comprise a large number of items, mainly, however, the produce of foreign countries.

The values of the chief articles exported from New South Wales to Queensland have been as follow in the years named :—

Description of Goods.	1892.	1893.	1894.	1895.	1896.
	£	£	£	£	£
Apparel (wearing)	22,028	17,063	16,151	18,912	12,003
Bags and sacks	7,095	12,218	17,382	16,232	15,323
Boots and shoes	10,485	8,223	6,278	15,534	15,526
Coal	11,317	9,640	6,438	9,580	9,745
Coin (gold)	201,020	841,700	305,000	580,200	85,000
Drapery	63,518	52,780	32,732	72,690	71,084
Flour	24,033	11,579	10,214	4,367	177,581
Fruit (fresh)	30,596	35,659	26,915	25,278	52,464
Hardware	26,063	19,341	15,264	15,433	18,056
Iron and steel	99,905	87,630	68,199	96,065	113,117
Leather	7,869	7,681	7,037	12,352	7,868
Live stock	174,376	125,666	79,707	99,784	93,237
Machinery	31,184	40,222	30,425	38,740	36,861
Paper, books, stationery, etc.	22,285	15,007	13,778	20,456	28,274
Potatoes	9,124	12,198	5,714	4,289	42,434
Tea	25,542	27,518	33,059	39,702	32,647
Tin (ingots, ore, and plates)	17,583	4,497	12,960	14,545	9,027
Tobacco, etc.	19,742	10,239	12,727	17,566	19,620
Wool	30,602	27,806	16,820	20,155	15,670

The export trade with Queensland has been rapidly falling away, but as this trade for the most part consisted of British goods re-exported, it was only to be expected that the opening of a direct trade with Europe would have this effect. The amount of border trade between the two colonies is shown in the following table. The fluctuation in the number, and consequently in the value, of stock imported and exported will account for the variation in the amounts :—

Year.	Imports.	Exports.	Year.	Imports.	Exports.
	£	£		£	£
1870	527,097	40,540	1892	879,716	243,971
1875	249,247	223,667	1893	904,186	546,757
1880	231,161	245,651	1894	556,585	166,486
1885	669,739	337,023	1895	592,126	507,244
1890	2,158,822	317,717	1896	1,020,830	216,961
1891	1,103,682	231,613			

SOUTH AUSTRALIA.

The trade with South Australia was at one time more variable than that with any other colony, depending, as it then did, on the state of the Murray and Darling Rivers. After 1886, however, the element of uncertainty was neutralised by the expansion of trade which was found in the requirements of the population of Broken Hill silver fields. The additional trade has proved of enormous advantage to South Australia, as the Barrier district of New South Wales, with its population of about 20,000 persons, may be looked upon as commercially a province of the neighbouring colony. The total imports and exports for stated periods, commencing at 1870, were :—

Year.	Imports.	Exports.	Year.	Imports.	Exports.
	£	£		£	£
1870	366,480	350,247	1892	1,461,815	2,988,448
1875	987,933	654,232	1893	1,007,280	3,889,491
1880	690,407	830,256	1894	854,190	3,108,600
1885	890,335	810,953	1895	911,170	2,314,682
1890	2,036,492	3,700,124	1896	1,436,927	2,720,374
1891	2,746,788	4,527,989			

The list of imports is a long one, and like that of Victoria includes a large number of articles of foreign manufacture :—

Description of Goods.	1892.	1893.	1894.	1895.	1896.
	£	£	£	£	£
Bags and sacks	3,259	2,876	2,476	6,788	7,035
Beer	18,730	13,565	7,724	8,709	12,609
Boots and shoes	5,739	4,615	3,316	3,730	7,465
Butter	20,785	13,609	11,402	25,610	25,461
Candles	7,390	8,393	6,108	6,033	10,764
Cement	2,278	336	1,038	340	1,661
Coke and coal	171,726	64,644	36,728	26,681	135,681
Copper (ore and ingots)	101,641	20,368	17,530	11,892	1,952
Drapery, wearing apparel, etc.	58,276	57,346	42,894	57,676	80,488
Drugs and apothecaries' ware	5,931	4,570	4,133	4,451	5,601
Dynamite, powder, arms, etc.	23,378	30,791	27,984	20,087	28,145
Eggs	25,034	22,308	16,360	15,570	12,964
Flour	169,727	66,550	83,242	77,487	189,136
Fruit (fresh)	18,817	17,505	11,783	13,350	19,624
,, (dried)	4,991	5,703	4,432	4,527	4,779
Furniture and upholstery	2,325	1,504	2,214	1,444	3,363
Gold (coin, bars, and dust)	83,053	126,056	21,772	37,027	40,672
Grain and pulse—					
Wheat	5,909	2,618	7,041	31,232	43,236
Other	28,176	15,006	13,194	19,190	21,229
Hardware	20,573	14,898	5,731	6,708	11,268
Hats and caps	4,971	3,445	2,752	2,977	3,784
Hay and chaff	52,077	14,434	24,023	77,204	128,419
Iron and steel	86,504	49,811	27,848	23,871	39,674
Jams and jellies	7,345	5,035	2,864	2,110	6,688
Live stock	22,889	16,678	8,276	22,680	20,840
Machinery	30,869	19,401	19,583	24,582	53,260
Milk (condensed & preserved)	9,101	8,018	5,940	5,672	8,398
Oils in bulk	7,220	8,050	7,032	6,931	10,706
Paper, books, stationery, etc.	9,521	5,972	4,681	4,664	9,357
Potatoes	9,559	11,115	9,234	7,299	12,973

Description of Goods.	1892.	1893.	1894.	1895.	1896.
	£	£	£	£	£
Skins and hides	15,634	3,911	6,408	11,117	15,637
Spirits	23,640	18,139	14,707	13,072	16,746
Sugar (raw)	39,589	40,175	35,974	26,255	29,373
Tea	13,928	14,876	13,766	10,646	11,262
Timber	156,973	127,069	108,793	80,715	92,531
Tobacco, cigars, etc.	11,340	10,558	9,390	9,644	10,708
Toys and fancy goods	3,015	3,541	2,752	3,751	5,361
Vegetables (not including potatoes)	12,516	11,940	10,315	7,639	11,693
Wines	5,716	2,975	1,891	2,182	2,711

The exports to South Australia are chiefly silver bullion, lead, and ore, and wool. The values of the principal items for the last five years are as follow :—

Description of Goods.	1892.	1893.	1894.	1895.	1896.
	£	£	£	£	£
Boots and shoes	5,894	3,176	2,391	2,041	13,962
Coal	62,869	62,858	63,418	51,947	106,445
Coin (gold)	14,000	59,000	445,000	19,000	64,100
Coke	232	3,813	10,033	6,701	1,088
Live stock	58,717	112,335	90,094	71,064	54,568
Machinery	9,762	16,352	6,279	10,112	14,274
Paper, books, & stationery	1,856	2,516	3,617	2,798	4,437
Silver (ingots, lead, and ore)	2,354,938	2,988,018	2,254,864	1,605,774	1,744,174
Skins	37,871	31,392	46.711	39,961	36,993
Sugar (raw)	5,234	17,751	1,971	3,055	979
Wool	361,817	489,092	488,835	388,240	511,233

The records of the overland trade were not kept with exactitude before the year 1877, but the time which has since elapsed is amply sufficient to illustrate the importance of the trade. The subjoined statement shows that since that year there has been a large expansion. The imports and exports of 1877, taken together, amounted to £464,252, but in 1891 they reached the very high figure of £6,341,926. In 1892 the figures fell to £3,971,487, but in 1893 they rose to £4,554,766, only to fall, however, to £2,757,096 in 1895, while in 1896 they increased again to £3,361,798. The expansion from 1886 to 1891 was due, as already pointed out, to the requirements of the newly-found silver-fields near the South Australian border, and the main reason for the decline in 1892 was to be found in the diminished silver production, and the consequently lessened amount of imports into the Barrier district. The revival in 1893 was owing to increased production at Broken Hill consequent on the settlement of the industrial disputes which had affected the silver industry in the previous year; but the great fall in the market value of the metal in 1894 brought the trade down to its 1892 level; and stoppage of work in one of the principal mines, in consequence of a fire, was responsible for a further fall in 1895. Increased activity at the mines, together with a slight rise in the price of the metal, caused the increase in 1896.

Most of the articles given in the foregoing list are sent to South Australia for the purpose of re-export, and are not, in the true sense, exports to that colony. It is not possible, however, to trace these goods to their ultimate destination, and, in accordance with the system adopted in most Customs statistics, the country which the goods first enter is credited as dealing directly with this colony. This remark applies with equal force to Victoria. The imports from South Australia *via* Silverton, Willyama or Broken Hill, and Wentworth on the Darling, amounted to £2,127,510 during 1891, but since that year they steadily declined, until in 1895 they were but £620,802 in value. In 1896, however, they were higher than in the previous three years. It is anticipated that the extensions of the railway system of this colony to the banks of the Darling at Bourke and Wilcannia will eventually divert not a little of the traffic which has hitherto gone to Adelaide. The certainty of speedy delivery, and the less amount of handling to which goods will be subjected, will probably more than compensate for the additional expense of delivery. The overland trade since 1877 is shown below :—

Year.	Imports.	Exports.	Year.	Imports.	Exports.
	£	£		£	£
1877	253,838	210,414	1890	1,561,992	3,471,655
1880	243,374	698,581	1891	2,127,510	4,214,416
1885	386,252	617,606	1892	1,141,418	2,830,069
1886	442,034	1,396,403	1893	880,869	3,673,897
1887	713,238	1,513,241	1894	633,333	2,906,641
1888	1,154,924	1,359,802	1895	620,802	2,136,294
1889	1,092,095	2,731,656	1896	999,406	2,362,392

TASMANIA.

The commercial intercourse of New South Wales with Tasmania at one time promised to develop into importance, but the total trade was less in 1895 than in 1885. It will be seen that the imports still largely exceed the exports; and while the difference in the two branches of the trade was becoming less every year until 1891, the imports in 1896 were again fully three-and-a-half times the value of the exports :—

Year.	Imports.	Exports.	Year.	Imports.	Exports.
	£	£		£	£
1870	90,827	26,555	1892	453,597	226,864
1875	167,870	44,274	1893	356,622	209,546
1880	383,106	81,484	1894	342,522	180,583
1885	582,177	108,758	1895	303,270	152,451
1890	432,615	215,674	1896	597,706	167,399
1891	377,174	252,356			

The chief imports are tin in ingots and silver ore, entirely for the purpose of re-export; green fruit, potatoes, and other agricultural produce. The principal articles of import worthy of note are as follow :—

Description of Goods.	1892.	1893.	1894.	1895.	1896.
	£	£	£	£	£
Bark	17,652	16,775	16,959	16,884	17,748
Fruit (green)	93,661	56,358	69,856	64,192	115,084
Hops	12,241	11,502	14,621	12,319	13,542
Jams and jellies	3,320	3,342	2,223	1,785	4,972
Live stock (sheep)	34,827	21,648	14,335	10,449	14,647
Potatoes	63,210	81,525	65,330	78,108	149,346
Silver ore	37,017	24,637	51,769	9,885	132,273
Straw	3,405	1,259	243	3,374	9,895
Timber	7,017	5,434	3,583	4,321	3,144
Tin (ingots)	115,242	90,276	75,100	40,010	40,903

The export trade embraces a large number of articles, the most important being live stock, £6,881 ; raw sugar, £42,044 ; coal, £18,644 ; and drapery and apparel, £8,870 ; together £76,439, out of total exports to the amount of £167,399. Most of the other articles are foreign manufactured, chiefly the produce of Great Britain.

NEW ZEALAND.

New Zealand gave promise at a former period of being one of the leading customers of this colony; but from various causes both the imports and the exports fell away very considerably. The export trade in commodities shows but little sign of recovery, the large increase in the values of late years being due to shipments of gold coin; while the value of the imports fluctuates with the character of the season in New South Wales, a bad year being always attended with large importations of New Zealand wheat, oats, and other produce. The following table shows the imports and exports for a series of years :—

Year.	Imports.	Exports.	Year.	Imports.	Exports.
	£	£		£	£
1870	298,951	197,025	1892	717,309	286,059
1875	135,480	362,764	1893	756,433	533,262
1880	460,735	525,174	1894	484,450	770,392
1885	899,623	369,055	1895	563,528	486,173
1890	932,073	294,113	1896	704,699	429,583
1891	871,422	280,039			

The imports consist chiefly of gold bullion, timber, and agricu and dairy produce. The value of the principal articles is given with:—

Description of Goods.	1892.	1893.	1894.	1895.
	£	£	£	£
Butter	7,403	632	......	5,459
Cheese	997	582	484	3,033
Drapery, apparel, etc.	13,664	9,213	11,020	13,293
Flour	17,555	3,049	403	133
Fungus	4,109	4,884	1,777	812
Gold bars and dust	231,490	343,718	222,344	299,382
Grain and pulse—				
Wheat	38,224	31,080	28,351	......
Oats	119,541	124,475	60,191	60,491
Other	47,612	22,735	7,004	3,293
Gum	64	12	688	199
Live stock	3,696	9,850	44,612	29,902
Malt and hops	27,466	13,735	15,622	23,527
Meat (preserved)	3,059	1,062	195	600
(Bacon, etc.)	10,355	2,523	3,292	3,021
Oatmeal	27,389	4,177	2,248	1,851
Oysters	3,575	2,160	3,600	2,935
Phormium tenax	6,888	10,480	6,619	5,706
Potatoes	56,165	17,313	3,497	5,854
Timber	55,498	68,852	60,622	63,758

In 1883 direct steam communication was established between Zealand and Great Britain; this, together with the large falling the export of specie, will account for the contraction of the outward which took place between that year and 1892. The value of the prin articles exported to New Zealand during each of the past five years follows:—

Description of Goods.	1892.	1893.	1894.	1895.
	£	£	£	£
Coal	72,450	68,433	60,767	50,347
Coin (gold)	25,000	225,000	445,000	140,018
Drapery and apparel	24,344	18,366	14,418	15,256
Fruit (fresh)	12,388	27,326	27,386	17,854
Manures	20,114	18,587	21,226	27,405
Paper, books, stationery, etc.	5,696	4,993	4,223	7,001
Sugar (raw)	366	19,435	42,961	9,921
Timber	8,349	7,603	10,437	10,521

OTHER BRITISH POSSESSIONS.

Besides the Australasian colonies and Great Britain, the only British possessions that have a trade with New South Wales at al siderable are Hong Kong, India, and Fiji; although during the las years the trade with Ceylon and Canada has been steadily increasing. The value of the imports and exports of each of the three first-named colonies during 1875, and at subsequent periods, was as follows :—

Year.	Hong Kong.		India.		Fiji.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
	£	£	£	£	£	£
1875	117,881	172,676	12,295	10,958	32,345	63,033
1880	228,526	137,577	653	19,611	54,135	120,518
1885	340,187	246,032	117,208	130,292	192,540	128,643
1890	271,730	255,050	195,368	253,280	99,853	98,951
1891	273,383	282,309	260,307	127,388	89,859	103,773
1892	239,606	254,615	180,499	50,923	70,121	100,089
1893	191,477	182,502	184,261	37,173	56,012	131,403
1894	182,496	162,167	201,805	36,991	45,039	117,840
1895	181,529	141,976	212,337	54,407	27,890	86,420
1896	75,860	185,601	203,176	126,203	36,058	107,724

Hong Kong commercially is a port of China, and no inconsiderable portion of the trade of that Empire with New South Wales is transacted *via* that port. The China trade is of a variable nature, the total of the direct trade for 1896 being £198,422, as against £212,392 in 1886; while the trade *via* Hong Kong in 1896 was only £261,461 as against £567,490 ten years previously. The imports from Hong Kong during 1896 consisted principally of opium valued at £8,171, tea at £5,420, rice at £16,651, tobacco at £3,464, silks at £2,322, China oil at £1,640, flax and hemp at £9,325; flour, £3,424; sugar (raw), £10,779; and mats and matting at £373. The export trade for the year chiefly comprised the following items:—Coin to the amount of £135,225; coal, £15,790; bêche-de-mer, £1,556; fungus, £4,936; lead, £16,322; and old metal, £5,657.

The Indian trade has grown up almost entirely since 1880, in which year it amounted to only £20,264, increasing to £422,137 in 188[illegible]. Since that period the trade has greatly fluctuated, owing largely to the variable export of coin. During 1890, it reached a total of £448,648, the highest yet attained; but during the next three years it steadily declined, although in 1894 it showed an upward movement, the improvement being maintained in 1895 and 1896, when the values were £266,744 and £329,379 respectively. Castor oil is an article very largely imported from India, the value of the oil received during 1896 being £16,239. There is also a large trade in woolpacks, the importations amounting to £53,031; and in bags and sacks, of which goods to the amount of £59,466 were received. The only other articles imported during 1896 in any quantity were mats and matting, £3,287; rice, £2,699; and tea, £46,538. The outward trade with India in most years is confined almost entirely to coin, coal, and copper. During

1896 the export of gold amounted to £67,127, the other principal articles exported being coal, £27,763; horses, £23,800; and scoured wool, £5,012; the four items mentioned comprising a value of £123,702, out of a total export trade during 1896 of £126,203. The great falling off noticeable since 1890 is due to the decline in the amount of gold coin and bullion exported. In that year the value of gold exported was £203,299, and in 1891 only £87,361, while in 1894 there was no export of gold, in 1895 an export of only £19,456, and in 1896 one of £67,127.

The Fiji Island trade is valuable, but, like the trade with other colonial possessions, is rather unsteady. In 1875 the imports from these Islands were valued at £32,345, and the exports at £63,033, being a total of £95,378; while in 1896 the imports were only £36,058 in value, and the exports had risen to £107,724, the total trade thus being £143,782. The imports were highest in 1885, when they were valued at £192,540. The exports reached their highest total in 1883, when they amounted to £248,380; from that time there was a steady decline until 1887, when the lowest figure was reached. Since then the exports have gradually recovered, and the figures for 1893 were the highest recorded for a number of years, but the trade declined in 1894 and 1895, recovering to a slight extent in 1896.

The rise of a trade with the Canadian Dominion and Ceylon may be traced in the following table, which gives the imports and exports for 1875 and following periods:—

Period.	Canadian Dominion.		Ceylon.	
	Imports.	Exports.	Imports.	Exports.
	£	£	£	£
1875	....	....	....	2,059
1880	17,530	....	....	1,781
1885	62,847	....	17,701	8,531
1890	18,784	10	43,702	4,080
1891	32,864	40	55,544	631
1892	10,655	37	50,725	8,975
1893	33,316	8,374	70,991	2,052
1894	52,740	14,523	81,146	2,822
1895	61,742	16,804	94,595	2,055
1896	83,810	11,555	113,352	6,785

For a number of years prior to 1893 there was a fair import trade in lumber with Canada, but the establishment of a direct line of steamers between Sydney and Vancouver in that year had the effect of increasing the number of articles imported, and of laying the foundation of an export trade, which until that time was practically non-existent. The principal articles imported in 1896 were timber, £7,929; machinery £12,910; paper, books, etc., £4,823; fish (fresh, dried, and preserved),

£4,435; drapery and apparel, £9,366; bicycles, £16,460; flour, £14,558; and wheat, £5,548—making a value of £76,029, out of a total of £83,810. The chief article of export was skins and hides, to the value of £3,432; the other principal items being tin in ingots, £3,160; preserved meat, £1,675; butter, £437; and fruit, £1,238. These are small beginnings, but the trade may be expected to show a substantial increase during the next few years.

Of late years there has been a marked tendency to substitute for Chinese teas the product of Ceylon and India, and it is entirely due to this fact that the import trade with the island has made the steady progress shown in the above table. In 1896 the tea imported from Ceylon was valued at £100,899, out of a total of £113,352; the other principal imports being coffee, £6,467; fibre, £1,536; and oilmen's stores, £1,831. The chief exports were coal, £4,084; horses, £250; frozen meat, £1,408; leather, £156; and kerosene shale, £63.

TRADE WITH THE UNITED KINGDOM AND ITS POSSESSIONS.

To what extent the trade of the colony follows the British flag may be gathered from the following figures, which show not only the value of the trade of New South Wales with Great Britain and her dependencies during the period since 1870, but also the proportion which that trade bears to the whole. A fairly steady proportionate decline is apparent in the exports since 1886, which was about the period when direct trade with Continental Europe was established:—

Year.	Imports from Great Britain and British Possessions.	Percentage of total imports.	Exports to Great Britain and British Possessions.	Percentage of total exports.
	£		£	
1870	6,924,998	83·59	7,687,148	95·72
1875	12,563,296	93·13	13,213,258	96·65
1880	13,021,783	91·85	15,210,314	97·00
1885	21,299,715	89·74	14,794,052	88·33
1886	19,153,071	89·86	14,250,570	90·66
1887	17,564,948	91·62	16,485,109	89·00
1888	19,034,772	89·66	18,508,498	88·47
1889	20,198,508	88·34	20,281,259	87·06
1890	20,273,053	89·64	18,582,372	84·29
1891	22,474,355	88·54	21,066,606	81·20
1892	18,662,883	89·83	17,053,145	77·61
1893	16,679,402	92·11	18,569,809	81·02
1894	14,386,013	91·04	16,506,202	80·21
1895	14,352,796	89·75	17,323,106	78·98
1896	17,375,139	84·50	17,271,037	75·06

FOREIGN TRADE.

The total value of the trade of the colony with countries other than those under British dominion shows a large increase since 1886, as will be seen from the subjoined table. The import trade is marked by fluctuation; but the export trade has been more regular, and shows a considerable increase during the past ten years, due to the establishment of direct trade with France, Belgium, and Germany. The large decline in the value of the imports in 1887 was chiefly due to a falling off in the United States trade, though a sensible decline also took place in the imports from other leading foreign countries. The lost ground was more than recovered in subsequent years; and the great decline in 1893 and 1894, in the exports as well as the imports, was due to causes which affected the whole trade of the colony, though not quite in the same degree as the commerce with foreign countries. In 1895 and 1896 the trade again showed an upward tendency, the increase being relatively greater than that in the trade with the United Kingdom and British colonies and possessions:—

Year.	Imports.	Exports.	Year.	Imports.	Exports.
	£	£		£	£
1886	2,160,056	1,467,367	1892	2,113,643	4,919,102
1887	1,606,369	2,036,641	1893	1,427,633	4,351,414
1888	2,194,505	2,411,632	1894	1,415,928	3,981,471
1889	2,664,549	3,013,675	1895	1,639,619	4,611,679
1890	2,341,951	3,463,565	1896	3,186,371	5,739,312
1891	2,909,042	4,877,414			

THE UNITED STATES.

At one time the United States was the largest foreign market of the colony, the value both of the imports and the exports far exceeding that of any other country; but the direct shipments of wool to the Continent of Europe, which are steadily increasing, have placed it below France and Germany, although large shipments of gold in some years may seem to place it above these European countries. The import trade was marked by a fairly uniform rate of increase until 1886, since which year the value has greatly fluctuated. The export trade also shows great variableness, and depends almost entirely on the demand for gold which prevails in the States. The peculiarity of the trade will, perhaps, be best exemplified in the following table:—

Year.	Imports.	Exports.	Year.	Imports.	Exports.
	£	£		£	£
1886	1,018,773	521,216	1892	823,522	1,529,980
1887	693,420	934,443	1893	526,331	626,566
1888	967,528	1,044,144	1894	542,427	374,541
1889	1,094,697	1,130,589	1895	624,268	683,606
1890	859,102	1,300,375	1896	1,729,871	2,064,964
1891	1,277,032	2,313,671			

The imports comprise a large number of articles, amongst which the following are the most important:—

Description of Goods.	1892.	1893.	1894.	1895.	1896.
	£	£	£	£	£
Bicycles, &c.	401	971	554	644	50,758
Brushware	5,024	3,832	2,943	4,550	4,991
Carriages and carriage materials	33,327	12,751	17,165	17,278	24,131
Drugs and apothecaries' ware	21,846	9,551	9,844	13,002	20,445
Fish (preserved)	27,314	19,028	14,754	19,028	35,527
Flour	694	240	......	......	264,199
Furniture and upholstery	13,831	6,117	5,307	4,495	6,842
Hardware	100,203	51,574	21,967	20,208	33,173
Iron and steel	8,573	8,250	6,631	10,536	11,690
Kerosene	49,096	52,411	54,867	71,967	70,402
Leather	18,973	19,393	27,662	22,070	24,308
Machinery	19,762	11,421	14,594	19,930	71,603
Meat (preserved)	7,958	1,991	1,065	831	4,371
Paper, books, stationery, etc.	46,505	51,189	28,626	34,696	56,103
Railway plant	8,214	1,845	2,494	2,996	2,100
Sewing machines	21,182	6,476	21,120	13,578	19,778
Silver plate and plated ware	5,557	2,231	2,990	2,529	2,767
Timber—dressed and undressed	134,503	58,738	55,203	82,979	117,772
Tobacco, cigars, etc.	45,689	28,032	32,848	47,508	110,774
Turpentine	6,625	5,032	5,023	10,460	8,207
Watches and clocks	16,929	6,140	6,216	8,246	10,288
Wheat	500	......	......	......	445,690

The other articles imported are mostly manufactured goods. In most years there has been a fairly large import of breadstuffs from the United States, and during 1886 the value of such imports was £96,216; in 1889 the value of flour imported reached £54,490, and of wheat, £142,397. In 1895, however, the imports of grain and pulse of all kinds only amounted to £781; but in 1896 they amounted to no less than £717,200, of which wheat represented £445,690, and flour £264,199. This large importation was due to the failure of the wheat crop in the adjoining colonies, from which the New South Wales deficiency is generally supplied.

The exports to the United States are chiefly confined to specie and a few articles of raw material, the produce of the colony, the principal of which are coal, tin, wool, and marsupial skins. No other goods are exported in considerable quantities. During the last five years the value of the export of the principal articles was :—

Description of Goods.	1892.	1893.	1894.	1895.	1896.
	£	£	£	£	£
Gold (bars and dust) ..	....	16,473	....	....	....
Gold (coin)	986,000	285,600	100,218	100,000	1,677,742
Coal	142,270	111,240	112,271	106,940	119,920
Tin	72,889	70,584	28,484	44,768	22,182
Skins (chiefly marsupial)	234,290	89,736	43,749	200,998	80,351
Wool	51,591	17,572	79,336	218,679	150,396
Shale	3,354	1,752	418	904	1,280

For some years past there has been a considerable export of gold to America. The quantity sent away during 1892 and the two previous years was especially large, but it fell off considerably during the next three years. In 1896, however, the quantity shipped to the United States exceeded a million and a half. The value of the precious metal, both coined and uncoined, exported during the last ten years was :—

Year.	Value.	Year.	Value.
	£		£
1887	651,612	1892	986,000
1888	578,488	1893	302,073
1889	751,220	1894	100,218
1890	1,016,940	1895	100,000
1891	1,710,670	1896	1,677,742

BELGIUM.

The direct trade between this colony and Belgium began in 1881, and may, to a large extent, be attributed to the International Exhibition held in Sydney during 1879–80. In the year mentioned the combined imports and exports amounted to only £26,237, while in 1893 they had risen to £1,250,720, although in 1896 they were only valued at £982,173. This cannot but be regarded as an enormous increase in so short a time. In point of value the Belgian trade of the colony is larger than that of any other foreign country, Germany, France, and the United States excepted; but the port of Antwerp, which receives the bulk of the trade, is a distributing centre for a great part of the wool destined for French, German, and other Continental markets, and it is not possible to say how much of the goods shipped to Belgium are for local requirements.

The imports from Belgium comprise a large number of articles. Iron in its various manufactures, principally in bars, plate, and wire, forms a very large proportion of the total imports, and glassware, candles, cigars, cement, and starch are all imported to some extent, though the trade in each commodity is subject to considerable fluctuation.

The outward trade with Belgium is confined almost entirely to wool though some tallow and skins and hides are also exported. During 1896 the amount of scoured and washed wool sent to Belgian ports was 2,561,049 ℔., valued at £125,071, and 21,518,864 ℔. of greasy wool of the value of £631,703, making a total of £756,774. Belgium was, therefore, next to Great Britain and France, the largest purchaser of New South Wales wool in 1896. The following table shows the import and export trade with Belgium since 1887 :—

Year.	Imports.	Exports.	Year.	Imports.	Exports.
	£	£		£	£
1887	37,735	557,710	1892	227,363	951,570
1888	64,766	723,286	1893	129,114	1,121,606
1889	88,843	725,687	1894	115,119	1,121,822
1890	130,819	1,011,864	1895	150,288	780,826
1891	188,277	1,039,333	1896	104,293	877,880

GERMANY.

A large trade has been maintained with Germany since 1879. Direct communication was established in 1887 by the North German Lloyd's Company, of Bremen, and further extended by a line of German cargo boats trading between Hamburg and Sydney since 1888. This trade has attained considerable dimensions, and now probably exceeds that with any other foreign country, although the Customs figures may not always disclose this fact. The larger trade with the United States in some years is, as has been shown, mainly due to shipments of gold. The following table shows the values of the principal articles imported from Germany during the last five years :—

Description of Goods.	1892.	1893.	1894.	1895.	1896.
	£	£	£	£	£
Apparel, drapery, boots, etc.. ...	98,836	77,703	46,545	72,747	110,097
Beer	4,995	6,254	6,411	9,090	17,902
Books, paper, stationery, etc...	9,470	7,254	12,610	11,036	20,387
Candles	7,910	4,982	4,949	6,998	22,331
Cement..............................	17,559	5,159	1,463	25,498	31,131
Furniture	38,272	15,498	3,279	5,308	11,036
Glass and glassware	13,073	9,009	9,953	12,200	26,001
Iron and iron manufactures......	95,578	40,051	47,467	49,972	95,975
Machinery	7,323	6,486	3,493	2,760	14,964
Musical instruments	60,633	28,930	23,820	34,989	55,056
Sewing machines	7,846	3,664	2,700	5,481	3,052
Spirits	40,862	35,997	15,799	34,576	39,102
Sugar	7,494	1,927	306	2,271	3,913
Telegraphic material..............	2,955	1,237	4,500	4,163	3,180
Tobacco, cigars, and cigarettes..	34,350	27,041	16,971	12,556	19,744
Toys and fancy goods	29,120	21,896	18,424	21,364	19,035

The exports consist almost entirely of wool, the value of which, in 1896, was £720,063, out of a total export of £771,389. The only other items of a considerable value exported during 1896 were skins and hides, £23,136; and silver ore, £15,920. The increase in the wool export during the last few years is chiefly due to the greater facilities now existing for direct shipment:—

Year.	Imports.	Exports.	Year.	Imports.	Exports.
	£	£		£	£
1887	296,952	100,012	1892	581,402	1,017,456
1888	481,009	128,546	1893	373,233	979,898
1889	533,082	519,435	1894	345,364	917,310
1890	639,475	404,280	1895	425,697	1,141,661
1891	773,016	437,522	1896	690,843	771,389

FRANCE AND NEW CALEDONIA.

The French trade has risen in importance since 1881, a result almost entirely due to the establishment of direct communication between this colony and the Republic by the Messageries Maritimes Company, but it has been accompanied by a corresponding falling off in the trade with New Caledonia, the chief dependency of France in the South Pacific. Thus, while in 1887 the total value of French imports and exports amounted to only £242,913, as against £1,618,881 in 1896, that of New Caledonia fell during the corresponding period from £207,888 to £151,598.

Wearing apparel and drapery form in most years the largest class of imports from France; the imports of drapery and silk amounted in 1896 to £21,601, of apparel to £6,053, and of boots to £1,412. In 1896, however, these goods were surpassed by wines and spirits—the import of the former amounting to £19,874, and of the latter to £28,696. Toys and fancy goods to the value of £5,576; cigars, £7,493; cream of tartar, £15,477; glassware, £2,146; leather, £2,965; and roofing tiles, £4,045; were the only other goods largely imported. Great quantities of French goods are imported from Great Britain; but the indirect trade will ultimately be superseded by direct trade, and the cost of commission and double handling thus saved to the colony.

Wool forms the chief export to France. The value exported during 1896 was £1,285,093—an increase of £96,042 over the export of the preceding year. Sheepskins to the value of £114,310, and other skins, £6,138, were also exported. The trade with France since 1887 is shown in the following table:—

Year.	Imports.	Exports.	Year.	Imports.	Exports.
	£	£		£	£
1887	157,732	85,151	1892	77,436	806,693
1888	154,856	120,723	1893	49,436	1,134,072
1889	179,900	104,104	1894	70,649	1,067,440
1890	117,871	233,924	1895	76,663	1,436,122
1891	120,321	480,599	1896	145,972	1,472,909

As already pointed out, New Caledonia is an important market for the produce of the colony, though its value has been considerably affected by the establishment of regular communication between France and her dependency. The trade with New Caledonia reached a value of £207,888 in 1887, produce being imported into New South Wales to the value of £70,676, and exported to the amount of £137,212. Since that year, as will be seen below, the imports and exports show a very considerable decline :—

Year.	Imports.	Exports.	Year.	Imports.	Exports.
	£	£		£	£
1887	70,676	137,212	1892	18,242	184,128
1888	68,637	153,957	1893	21,417	89,791
1889	85,582	189,660	1894	25,171	72,732
1890	83,920	193,389	1895	28,345	71,344
1891	48,378	185,768	1896	41,263	110,335

CHINA.

With the exception of Chile, with which an export trade to the value of £137,246, chiefly in coal, was transacted in 1896, the only other foreign country whose trade with New South Wales reaches a large figure is China. The imports and exports credited to Hong Kong, however, belong in reality to the country generally, and the diminution which has taken place in the China trade since 1881 is to be attributed in no small degree to the transference of part of the trade from the ports of the Empire to Hong Kong. Still, when allowance is made on this score, it will be found that the actual loss of trade is by no means inconsiderable. The main import from China is tea, which exhibits a falling off, the decline being attributable to the larger consumption of Indian and Ceylon teas, the imports of which have largely increased of late years. The direct export trade has never been great. To correctly gauge the commercial relations between this colony and China, the trade of Hong Kong should be considered in conjunction with the figures given below :—

Year.	Imports.	Exports.	Year.	Imports.	Exports.
	£	£		£	£
1887	251,722	14,510	1892	217,996	9,810
1888	309,934	7,651	1893	164,481	5,609
1889	257,353	11,587	1894	131,006	7,581
1890	241,840	1,037	1895	133,870	7,943
1891	270,929	12,164	1896	190,545	7,877

JAPAN.

The recent war in the East has given Japan a new importance in the eyes of the world, and that enterprising country may in the future offer a larger market for many of the products of New South Wales.

Feeling in the Australian colonies, however, is averse to taking advantage of the provisions of the commercial treaty concluded between Great Britain and Japan, as to do so would have the effect of opening up the country to the unrestricted immigration of the Japanese. New South Wales will, therefore, derive no benefit from this treaty. Meanwhile the trade amounts to £76,380, the imports in 1896 being valued at £40,857, and the exports at £35,523. The principal articles imported during the year were—rice, £8,206; toys and fancy goods, £10,908; drapery, £656; silks, £7,190; brushware, £1,002; porcelain, £180; oils, £1,163; mats and matting, £1,369; drugs and chemicals, £821; edible nuts, £755; furniture and upholstery, £2,293; hatters' materials, 1,105; leather, £433; printing paper, £755; rugs, £394; and seeds, £346; while the exports chiefly consisted of wool, £22,342; tallow, £3,475; gluepieces, £1,825; bones, £2,016; skins, £649; coal, £172; drapery, £180; and leather, £2,367. The shipments of wool may be expected to show a substantial increase; and the recent establishment of a Japanese line of steamers with the ports of this colony should result in an extension of trade.

BALANCE OF TRADE.

The imports of the colony, taken over a series of years, greatly exceed the exports. The causes of this excess are chiefly two—the flow of British money to the colony for investment, and the proceeds of loans floated by the Government for the purpose of carrying out public works. Since 1890 these importations have to a large extent ceased, and the exports have exceeded the imports; for not only has the colony to send out the value of the goods imported, with their freight to its shores, but also the amount of interest payable on loans, the earnings of money sent here for investment, and the incomes derived by persons living abroad from property held in the colony. In 1895 the excess of exports over imports reached a sum of nearly £6,000,000.

The following is a statement of the balance of trade for each of the last ten years:—

Year.	Excess of Imports.	Excess of Exports.
	£	£
1887	649,567	....
1888	309,147	....
1889	....	431,877
1890	569,067	....
1891	....	560,623
1892	....	1,195,721
1893	....	4,814,188
1894	....	4,775,732
1895	....	5,942,370
1896	....	2,448,839

TARIFF CHANGES.

The Customs House properly so called was first established in the colony in the year 1800, when spirits, wine, and beer were subjected to specific import duties for the purpose of raising a fund to complete a gaol then in course of construction in the city of Sydney. Between 1800 and 1830 the tariff was varied many times; there were the usual duties on spirits and tobacco, and *ad valorem* duties on other articles of consumption. A feature of the *ad valorem* duties was that they fell entirely on non-British products, as goods, wares, and merchandise, the growth, produce, or manufacture of the United Kingdom, and not the subject of specific duties, were admitted free. In April, 1830, a revision of the tariff was made, and it was enacted that on spirits, the produce of the United Kingdom or of His Majesty's plantations in the West Indies, and imported direct from the United Kingdom, there should be paid a duty of 6s. 6d. per gallon; on spirits made or distilled from grain, the produce of the colony or its dependencies, 2s. 6d. per gallon, and if made from sugar or molasses 8s. 6d. per gallon; and on spirits not the produce of the United Kingdom, imported, 8s. 6d. per gallon. On unmanufactured tobacco there was levied a duty of 1s. 6d. per lb., and on manufactured tobacco or snuff 2s. per lb. These were the only fixed duties; on all other goods, not being the growth, produce, or manufacture of the United Kingdom, there was payable an *ad valorem* duty of 5 per cent.

The duties remained at these rates until the 1st April, 1840, when distillation from any article except grain was prohibited. From the 1st October of the same year the duty on spirits, the produce of the United Kingdom, or of British possessions in the West Indies or North America, and imported direct from the United Kingdom, was fixed at 9s. per gallon; on all other spirits the duty was to be 12s. per gallon. The duty on wine was fixed at 15 per cent. *ad valorem*; and on tea, sugar, flour, meal, wheat, rice, and other grain or pulse, 5 per cent. *ad valorem*. Unmanufactured tobacco was subject to a duty of 1s. 6d. per lb., and manufactured 2s. per lb.; all other goods, not the produce or manufacture of the United Kingdom, were subject to a duty of 10 per cent. *ad valorem*. From the same date the duty on locally distilled spirits was fixed at 6s. 6d. per gallon; but on the 1st January, 1842, it was raised to 9s. per gallon, which was the duty payable on spirits made in and imported from the United Kingdom. The restriction on local distilleries in regard to the use of anything but grain for distillation was at the same time removed, and by an order of the Queen in Council the produce of British India was admitted on the same terms as that of the United Kingdom. The tariff in regard to spirits was again altered on the 1st January, 1848,—the duty on colonial spirits, rum, and whisky was reduced to 3s. 6d. per gallon, and on all other spirits to 6s. per gallon.

On the 5th August, 1852, what is known as the E. Deas-Thomson tariff came into effect. The duties were made uniform for all countries trading with the colony, the differential treatment of British goods being done away with. The tariff was as follows :—

Articles.	Rate of Duty.
Ale and Beer in wood	℘ gallon, 1d.
,, in bottle	,, 2d.
Coffee, chocolate, and cocoa	℘ lb., ¾d.
Dried fruits	,, ½d.
Brandy and gin	℘ proof gal., 6s.
Whisky, rum, and all other spirits	,, 4s.
Perfumed spirit	℘ gallon, 4s.
Cordials	,, 6s.
Refined sugar	℘ cwt., 3s. 4d.
Unrefined sugar	,, 2s. 6d.
Molasses	,, 1s. 8d.
Tea	℘ lb., 3d.
Manufactured tobacco, until 31 December, 1853	℘ lb., 1s. 6d.
,, after 31 December, 1853	,, 1s.
Unmanufactured tobacco, to 31 December, 1853	,, 1s.
,, after 31 December, 1853	,, 8d.
Cigars and Snuff	,, 2s.
Wine, in wood or bottle	℘ gallon, 1s.
Colonial distilled spirit	℘ proof gal., 3/8

The duties remained untouched for two years, when the charges on spirits were increased as follows, as from November 10, 1854 :—

Articles.	Rate Duty.
Brandy and gin	℘ proof gal., 9s.
Whisky, rum, and other spirits	,, 6s.
Perfumed spirit	℘ gallon, 6s.
Cordials	,, 9s.
Colonial distilled spirit	℘ proof gal., 5/8

From the 14th September, 1855, the following revised scale of duties was imposed :—

Articles.	Rate of Duty.
Brandy and gin	℘ proof gal., 10s.
Whisky, rum, and all other spirits	,, 7s.
Perfumed spirits	℘ gallon, 7s.
Cordials	,, 10s.
Wine	,, 2s.
Ale and beer, in wood	,, 1d.
,, in bottle	,, 2d.
Tea	℘ lb., 3d.
Sugar, refined and candy	℘ cwt., 6s. 8d.
,, unrefined	,, 5s.
Treacle and molasses	,, 3s. 4d.
Coffee and chicory	℘ lb., 2d.
Cigars	,, 3s.
Tobacco and snuff	,, 2s.
Colonial spirits distilled from sugar	℘ proof gal., 6/5

This tariff remained in force for ten years; the only changes made were that opium was added to the list of dutiable goods at 10s. per lb., and unmanufactured tobacco was charged from 1st January, 1862, with duty at the rate of 1s. per lb. instead of 2s. On the same date an export duty was levied on gold at the rate of 2s. 6d. per oz., but on the 13th October this export duty was reduced to 1s. 6d. per oz., and continued in force for seventeen years, the duty being abolished 10th July, 1879. A poll-tax of £10 was levied on Chinese from 22nd November, 1861.

The next alteration in the tariff was the imposition of a duty of 1s. per package on all goods imported into the colony, excepting live stock, flour, wheat, sugar, tea, and goods in transit. These duties were in addition to existing duties, and were chargeable until the close of the year 1867. They were followed by an all round increase of 20 per cent. in the duties payable in respect of all goods imported for home consumption, with the exception of tea, sugar, brandy, and gin. These additional duties remained in force until the 29th November, 1865, when a new tariff was imposed. The Act sanctioning the tariff was assented to on the 19th January, 1866; that is, about seven weeks after the duties were collected. The tariff as amended was as follows:—

Articles.		Rate of Duty.	
Tea		⅌ lb.,	3d.
Sugar	refined	⅌ cwt.,	6s. 8d.
	unrefined	,,	5s.
	molasses	,,	3s. 4d.
Coffee and chicory		⅌ lb.,	2d.
Tobacco	manufactured, and snuff	,,	2s.
	unmanufactured	,,	1s.
	cigars	,,	3s.
Spirits and spirituous compounds		⅌ gallon,	10s.
Wines		,,	3s.
Ale and porter	in bottle	,,	6d.
	in wood	,,	3d.
Malt		⅌ bushel,	6d.
Hops		,,	2d.
Opium		⅌ lb.,	20s.
Rice		⅌ ton,	40s.
Dried fruits		⅌ cwt.,	10s.

On all other goods except those on the free list an *ad valorem* duty of 5 per cent. was chargeable. The free list comprised flour, wheat, animals, fresh fruits, wool, tallow, and some other articles, chiefly of re-export. The package duty was continued, as well as the duty of £10 levied on Chinese males arriving in the colony, and the excise duty on colonial distilled spirits was raised to 9s. 5d. per gallon. The poll-tax on Chinese was repealed on 20th November, 1867, and for the next fourteen years the immigration of these aliens was unrestricted.

A further important change in the tariff was made, dating from the 22nd May, 1871. The number of articles subject to specific duties was very largely increased, and the 5 per cent. *ad valorem* duties were continued; but there was a much larger free list, introduced, it was stated, for the purpose of lightening as much as possible the South Sea Island trade. The *ad valorem* duties were abolished on the 1st January, 1874, and the number of articles liable to specific duty was reduced. The next twelve and a half years saw little alteration in the body of the tariff, the changes made being chiefly in the direction of increasing the duties on wines, spirits, and tobacco. From the 10th December, 1879, the spirit duties stood as follow:—

Articles.	Rate of Duty.	
Spirits and spirituous compounds	℔ proof gall.,	12s.
Colonial distilled spirits	,,	12s.
Sparkling wine	℔ gallon,	10s.
Other wine	,,	5s.

An Act taking effect from the 20th February, 1884, imposed a duty of 1d. per lb. on stearine, and established the following duties on tobacco:—

Articles.	Rate of Duty.	
Cigarettes	℔ lb.,	6s.
Cigars	,,	6s.
Manufactured tobacco and snuff	,,	3s.
Unmanufactured tobacco for manufacturing purposes..	,,	1s.

The same Act increased the duty on opium to 20s. per lb., and was followed by the imposition of an excise duty on locally-made tobacco of 1s. per lb., and on cigars and cigarettes of 2s. 6d. per lb.

In 1886 a considerable change was made in the tariff. From the 7th April the articles liable to fixed duties were largely increased in number, and the 5 per cent. *ad valorem* duties were reimposed. In the following year (3rd June, 1887) an excise duty of 3d. per gallon was made payable on beer brewed in the colony, and on the 8th July the excise on locally-made tobacco was increased to 1s. 3d. per lb.

The specific and *ad valorem* duties imposed in September, 1886, were repealed on the 8th July, 1887, the repeal as regards malt and hops taking effect from 1st May, and for other duties from 1st October, 1887. The new schedule of duties which came into operation was much like the tariff existing prior to the changes of 1886, but the duty payable on spirits, both local and imported, was increased to 14s. per proof gallon, and on spirituous compounds to 14s. per liquid gallon.

In March, 1892, the tariff was again altered. The number of articles subject to specific duties was largely increased, and *ad valorem* duties of 10 and 15 per cent. were imposed; there was, however, a considerable fre list. The duties took effect as from the 2nd December, 1891. After a existence of four years this tariff was abolished, and an entirely new system of duties came into force with the first day of 1896. The *ad valorem* duties were absolutely repealed, as well as the great bulk of the specific duties; the duties on narcotics and spirituous liquors were retained as a permanent tariff; and certain other duties were to be maintained for a certain period, after which they were to cease. The following are the Customs duties now in force:—

PERMANENT TARIFF.

	Articles.	Rate of Duty.	
Spirits	On all kinds of spirits and spirituous compounds imported, and not otherwise enumerated	⅌ proof gall.,	14s.
	No allowance beyond 16·5 shall be made for the underproof of any spirit of a less strength than 16·5 underproof.		
	Case spirits—Contents of two, three, four, or five gallons shall be charged—		
	Two gallons and under as two gallons.		
	Over two gallons and not exceeding three as three gallons.		
	Over three gallons and not exceeding four as four gallons.		
	Over four gallons and not exceeding five as five gallons.		
	Bitters, essences, fluid extracts, sarsaparilla, tinctures, medicines, infusions, and toilet preparations containing—		
	Not more than 25 per cent. of proof spirit	⅌ gall.,	3s. 6d
	Not more than 50 per cent. of proof spirit	,,	7s.
	Not more than 75 per cent. of proof spirit	,,	10s. 6d.
	If containing more than 75 per cent. of proof spirit	,,	14s.
	If containing spirit overproof to be charged as spirituous compounds	⅌ proof gall.,	14s.
	Methylated spirit	⅌ gallon,	1d.
	Perfumed spirits, perfumed waters, Florida water and bay rum	⅌ liquid gall.,	20s.
Wines	Sparkling—For six reputed quarts, or twelve reputed pints	......	10s.
	Other kinds	⅌ gallon,	5s.
	Other kinds—For six reputed quarts, or twelve reputed pints	...	5s.
Beer, ale, porter, spruce, or other beer, cider, and perry.	In wood or jar	⅌ gallon,	6d.
	In bottle	,,	9d.
	For six reputed quarts, or twelve reputed pints	,,	9d.
Tobacco	Delivered from ship's side or from a Customs Bond for home consumption—manufactured, unmanufactured, and snuff	⅌ lb.,	3s.
	Unmanufactured, entered to be manufactured in the colony. At the time of removal from a Customs Bond or from an importing ship to any licensed tobacco manufactory for manufacturing purposes only into tobacco, cigars, and cigarettes	,,	1s.
	Sheepwash	,,	3d.
	Cigars and cigarettes (including wrappers in latter case)	,,	6s.
	Opium and any preparation thereof	,,	20s.

DIMINISHING DUTIES.

Candles per lb., or reputed package of that weight, and so in proportion for any such reputed weight, night lights, and stearine	℘ lb.,	1d.
From 1st July, 1897	,,	½d.
,, ,, 1899	Free.	
Oil, kerosene, naphtha, and gasoline	℘ gallon,	6d.
From 1st July, 1896	,,	3d.
,, ,, 1897	Free.	
Oils, except linseed oil (raw or boiled), fish and seal oils, black whale, cocoanut, sperm, palm, and essential oils	℘ gallon,	6d.
From 1st July, 1896	,,	3d.
,, ,, 1897	Free.	

Sugar—Refined.	Sugar—Raw, and Solid Glucose.	Molasses and Treacle—Glucose, Liquid, and Syrup.	Date.
per cwt. s. d.	per cwt. s. d.	per cwt. s. d.	
6 8	5 0	3 4	Until 30th June, 1897.
5 4	4 0	2 8	From 1st July, 1897.
4 0	3 0	2 0	From 1st July, 1898.
2 8	2 0	1 4	From 1st July, 1899.
1 4	1 0	0 8	From 1st July, 1900.
Free.	Free.	Free.	From 1st July, 1901.

Articles.	Rate of Duty.	
Biscuits	℘ lb.,	1d.
From 1st July, 1898	,,	½d.
From 1st July, 1900	Free.	
Confectionery (including cakes, comfits, liquorice, liquorice paste, lozenges of all kinds, cocoanut in sugar, sugar-candy, succades, and sweetmeats)	℘ lb.,	2d.
From 1st July, 1898	,,	1d.
From 1st July, 1900	Free.	
Fruits—Dried, candied and prunes (exclusive of dates)	℘ lb.,	2d.
From 1st July, 1898	,,	1d.
From 1st July, 1900	Free.	
Jams and Jellies—per lb. or reputed package of that weight, and so in proportion for any such reputed weight	℘ lb.,	1d.
From 1st July, 1898	,,	½d.
From 1st July, 1900	Free.	
Preserves and canned fruits, fruits boiled, peel drained, or dry	℘ lb.,	1d.
From 1st July, 1898	,,	½d.
From 1st July, 1900	Free.	

CUSTOMS REVENUE.

The amount of revenue collected by the Customs, including excise etc., during each of the last five years, is given in the following table :—

Particulars of Receipt and Rate of Duty.			Amount Collected.				
			1892.	1893.	1894.	1895.	1896.
IMPORT DUTIES.			£	£	£	£	£
Spirits	℔ gallon,	20s.	4,392	3,907	4,882	4,786	5,578
	,,	14s.	808,019	680,335	651,870	636,488	653,652
Methylated Spirits ..	,,	1s.	1,764	1,251	1,252	1,451	......
	,,	1d.	......	......	......	......	179
Wine—Still	,,	5s.	29,890	21,672	17,941	17,217	17,265
Wine—Sparkling	,,	10s.	8,770	5,828	5,861	6,092	7,045
Ale and beer in wood...	,,	6d.	24,750	20,658	21,747	21,205	20,845
Ale and beer in bottle...	,,	9d.	46,998	27,781	32,825	30,341	34,181
Tobacco--Manufactured	℔ lb.,	3s.	151,568	140,289	135,189	138,204	141,751
Tobacco in leaf	,,	3s.	879	573	821	1,672	1,703
Tobacco for Manufacturing purposes only....	,,	1s.	30,624	29,707	26,761	31,552	34,128
Cigars	,,	6s.	71,923	59,273	55,329	55,299	53,848
Cigarettes	,,	6s.	21,946	17,888	17,864	20,765	20,241
Sugar—Refined	℔ cwt.,	6s. 8d.	999	486	518	743	972
Sugar—Raw	,,	5s.	75,837	68,827	95,344	89,549	88,790
Molasses	,,	3s. 4d.	925	1,141	961	597	944
Sugar, Refined, ex Refinery	,,	6s. 8d.	400	550	691	333	......
Sugar, Raw, ex Refinery	,,	5s.	54,525	34,775	62,070	39,490	89,210
Molasses ex Refinery ...	,,	3s. 4d.	4,000	4,000	4,233	6,200	7,600
Tea	℔ lb.,	3d.	*4,009	......	......	......	......
Coffee	,,	3d	†574	......	......	‡16	......
	,,	6d.	1,543	819	558	304	‖92
Chicory	,,	3d.	11	4	11	20	......
	,,	6d.	519	193	36	25	‖10
Opium	,,	20s.	15,869	17,819	16,208	15,719	16,616
Rice	℔ ton,	60s.	15,327	15,869	15,514	16,004	‖6,392
Dried Fruits	℔ lb.,	2d.	54,950	51,844	48,966	58,993	62,273
Timber—Rough	℔ 100 ft. sup.,	1s. 6d.	47,945	41,848	39,737	35,780	‖11,206
Timber—Dressed.......	,,	3s.	14,750	10,746	10,808	10,263	‖2,339
Kerosene.............	℔ gallon,	6d.	45,185	48,829	52,226	53,582	¶21,397
	,,	3d.	......	......	......	......	**16,902
Flour	℔ cental,	1s.	48,138	26,624	32,825	17,423	§6
Wheat	,,	10d.	23,593	11,827	6,405	8,970	§......
Duty collected on Samples of Spirits.........			149	110	132	115	124
Other Specific Duties			425,906	320,468	287,010	324,490	91,507
Ad valorem Duties	10 per cent.		538,872	387,896	353,825	344,699	§144
	15 ,,		88,681	61,106	60,510	59,120	§29
TOTAL IMPORT DUTIES			2,664,230	2,114,943	2,060,930	2,047,507	1,406,969
EXCISE.							
Colonial Distilled Spirits	℔ gal.,	14s.	21,132	18,165	14,694	8,606	5,609
Excise on Tobacco	℔ lb.,	1s. 3d.	122,789	111,035	108,281	117,734	116,101
Excise on Cigars and Cigarettes..	,,	2s. 6d.	10,265	13,188	15,011	17,183	21,840
Excise on Beer......	℔ gal.,	3d.	135,090	121,915	118,855	122,773	127,217
Tobacco Factory License Fees..............			1,265	1,201	1,244	1,356	1,335
TOTAL EXCISE....................			290,541	265,504	258,085	267,652	272,102

* To 1st March, 1892 ; free from that date.

† To 1st April, 1892 ; free from that date.

‡ From 10th to 16th May, 1895 ; amount collected refunded.

§ To 31st December, 1895 ; free from that date.

‖ To 30th June, 1896 ; free from that date.

¶ To 30th June, 1896.

** From 1st July, 1896.

Particulars of Receipt.	Amount Collected.				
	1892.	1893.	1894.	1895.	1896.
MISCELLANEOUS COLLECTIONS.	£	£	£	£	£
Tax on Chinese	100	700	300	200	200
Bonded Warehouse License Fees	9,872	10,255	10,146	10,530	8,858
Rent of Goods in Queen's Warehouse	71	47	34	51	54
Pilotage	38,426	29,135	31,402	31,261	31,722
Harbour and Light Rates	20,610	17,330	21,212	22,679	23,399
Removal Dues	4,474	3,044	4,836	5,042	5,095
Shipping Fees (at ports other than Sydney or Newcastle)	......	......	10	7	9
Attendance of Officers superintending repacks	......	......	20	917	261
Crown's Share of Seizures and Penalties*	1,315	2,370	669	274	375
Surplus Proceeds, Sale of Overtime Goods*	363	265	246	296	184
Tonnage Rates at Newcastle	8,352	7,260	8,334	8,692	8,319
Tonnnage Rates at Wollongong	......	......	......	......	132
Tobacco—Licenses to Sell	603	638	573	635	581
Miscellaneous	......	......	3	......	......
Sundries*	659	1,492	1,022	358	376
TOTAL MISCELLANEOUS COLLECTIONS......£	84,845	72,536	78,807	80,942	80,165
TOTAL AMOUNT COLLECTED......£	3,039,616	2,452,983	2,397,822	2,396,101	1,759,236
DRAWBACKS AND REFUNDS......£	89,659	52,173	53,957	74,563	41,993
NET CUSTOMS AND EXCISE REVENUE......£	2,949,957	2,400,810	2,343,865	2,321,538	1,717,243

* Collected by Customs Department and paid direct into the Treasury.

The revenue derived from imported spirits, inclusive of perfumed spirits and samples, during the past ten years, was :—

Year.	Quantity on which duty was paid.	Duty.	Amount of duty collected.
	gallons.		£
1887	1,121,101	12s., 14s., 15s.	759,608
1888	1,178,293	14s. and 15s.	806,938
1889	1,164,360	14s. and 15s.	804,426
1890	1,196,561	14s. and 15s.	827,314
1891	1,241,503	14s., 15s., and 20s.	869,513
1892	1,158,703	14s. and 20s.	812,560
1893	975,971	14s. and 20s.	684,352
1894	936,125	14s. and 20s.	656,884
1895	914,054	14s. and 20s.	641,389
1896	939,368	14s. and 20s.	659,354

Colonial distilled spirits are subject to an excise equal to the duty on imported spirits. In 1886 the quantity entered for consumption was 9,733 gallons, on which a sum of £5,846 was paid; but in 1887, notwithstanding the increased duty levied, the quantity subject to excise increased to 15,762 gallons, and the amount of duty to £10,754. In 1892 the duty collected amounted to £21,132 on 30,187 gallons of spirit distilled, in 1893 to £18,165 on 25,950 gallons, in 1894 to £14,694 on 20,991 gallons, in 1895 to £8,606 on 12,294 gallons, and in 1896 to £5,609 on 8,013 gallons, the diminished quantities of 1895 and 1896 being due to the closing of the only distillery in the colony in the middle of the year 1895.

Still wine is subject to an import duty of 5s. per gallon, and sparkling wine to 10s. per gallon. The import of the first-named is now less than it was ten years ago, and the Customs revenue derived from this article has considerably declined. The amount of still wine imported during 1896 was 69,060 gallons, on which £17,265 duty was paid. The quantity of sparkling wine on which duty amounting to £7,045 was collected was 14,090 gallons. The growing favour in which Australian wine is held, and the general depression, which has limited the amount of money available for luxuries of this kind, have had the effect of reducing the importations of foreign wine.

The import of ale and beer was larger during 1891 than in any previous year, the quantities of beer imported, on which duty was paid, being 1,017,617 gallons in wood, and 1,481,681 gallons in bottle, or a total of 2,499,298 gallons; in 1896 the figures had fallen to 833,800 gallons and 911,493 gallons respectively, paying duty to the amount of £55,026, at the rate of 6d. per gallon for beer in wood or jar and 9d. for bottled. The excise duty on beer brewed in the colony is at the rate of 3d. per gallon. It was first collected for the second half-year of 1887, and amounted to £63,565, the quantity on which duty was paid being 5,085,217 gallons; in 1892, excise duty amounting to £135,090 was collected on 10,807,200 gallons; in 1893, £120,915 on 9,753,200 gallons; in 1894, £118,855 on 9,508,400 gallons; in 1895, £122,773 on 9,821,840 gallons; and in 1896, £127,217 on 10,177,360 gallons. As a set-off against the duty thus imposed, no duties are levied on hops and malt.

The duties levied on tobacco imported into the colony are, on the manufactured article, 3s. per lb.; on tobacco for manufacturing purposes if delivered from bond to any licensed tobacco manufactory, 1s. per lb.; on the leaf if delivered from bond for home consumption, and not to any licensed factory, 3s.; and on cigars and cigarettes, 6s. The excise on tobacco made in the colony is 1s. 3d. per lb., and on cigars and cigarettes, 2s. 6d. The total amount of import duties collected on tobacco and cigars during 1896 was £251,671, which was more by £4,179 than the amount collected in 1895.

In 1884 excise duties were first levied on tobacco manufactured in the colony. The amount collected annually during the last ten years was :—

Year.	Tobacco.	Cigars and Cigarettes.	Year.	Tobacco.	Cigars and Cigarettes.
	£	£		£	£
1887	127,545	1,284	1892	122,789	10,265
1888	128,899	1,038	1893	111,035	13,188
1889	123,212	1,150	1894	108,281	15,011
1890	118,287	2,806	1895	117,734	17,183
1891	123,937	7,425	1896	116,101	21,840

For a few years after the duty was increased in 1886 the revenue derived from the imported leaf steadily declined, its place being supplied by leaf grown in the colony. To meet this falling off, the excise duty levied on colonial-made tobacco entered for home consumption was increased, in March, 1887, from 1s. to 1s. 3d. per lb. If the American leaf, which is subject to a duty of 1s. per lb., were used exclusively in the manufacture of tobacco in the local factories, the actual duty paid on the finished product would have been, previous to the alteration in the tariff, 2s. per lb., and 2s. 3d. since the alteration, as against 3s. for the imported article. But imported leaf is by no means exclusively employed—large quantities of locally-grown leaf are used, and the absolute amount of duty paid per lb. on the tobacco made in the colony, other than cigars and cigarettes, was 1s. $5\frac{7}{25}$d. in 1887, 1s. $6\frac{1}{2}$d. in 1888, 1s. $6\frac{13}{50}$d. in 1889, 1s. $6\frac{7}{12}$d. in 1890, 1s. $6\frac{9}{10}$d. in 1891, 1s. $6\frac{3}{4}$d. in 1892, 1s. 7d. in 1893, 1s. $6\frac{3}{4}$d. in 1894, 1s. 7d. in 1895, and 1s. $7\frac{2}{5}$d. in 1896. This subject is more fully dealt with in the subsequent chapter on "Agricultural Production."

The duty on tea, which was 3d. per lb., was abolished in March, 1892. The amount of revenue per head derived from the duty varied very little from year to year, being a little over £100,000. The great increase shown in 1891 is attributable to withdrawals from bond in expectation of an increase of duty which was not imposed. The revenue received from this source for the ten years from 1883 and 1892 was :—

Year.	Amount.	Year.	Amount.
	£		£
1883	75,713	1888	100,617
1884	100,059	1889	108,954
1885	98,915	1890	106,986
1886	105,979	1891	120,326
1887	106,815	1892*	4,009

* To 1st March.

During 1896 refined sugar coming into the colony was subject to a duty of 6s. 8d. per cwt., but this rate was reduced to 5s. 4d. per cwt. on the 1st July, 1897. The Commissioners of Customs, however, only include loaf sugar under the heading of refined. The quantity imported during 1896 was 2,916 cwt., paying duty to the amount of £972. Duty was levied during 1896 on raw sugar, which includes all the ordinary sugar of trade, at the rate of 5s. per cwt., which was reduced to 4s. on the 1st July, 1897. Notwithstanding this duty, and the large area of the colony adapted for sugar-growing, the imports are considerable. The revenue from raw sugar is shown in the following table:—

Year.	Quantity.	Amount.	Year.	Quantity.	Amount.
	cwt.	£		cwt.	£
1887	520,192	130,048	1892	521,444	130,362
1888	470,668	117,667	1893	414,048	103,602
1889	642,880	160,720	1894	629,656	157,414
1890	558,540	139,625	1895	516,156	129,039
1891	519,725	129,931	1896	712,000	178,000

The other articles in the specific list which produced most revenue in 1896 were fruit, green and preserved, which yielded £62,730; oils, kerosene and other, £45,941; opium, £16,616; timber, £14,129; bitters, sarsaparilla, essences, and tinctures, £13,373; salt, £11,263; candles, £11,169; molasses, £8,544; grain and pulse, £6,505; fish, dried and preserved, £6,150; jams and jellies, £5,579; confectionery, £5,421; butter, £4,563; galvanised iron and manufactures, £4,298; milk, condensed and preserved, £3,952; cement, £3,870; glucose, £3,126; and other articles, £10,234; these amounts, together with those already given for spirits, wines, beer, tobacco, and sugar, making up the amount of specific duties collected, viz., £1,406,796.

The *ad valorem* duties were abolished on 31st December, 1895; the small amount of £173 collected in 1896 on importations of the previous year brings up the total import duties to £1,406,969; but drawbacks and refunds were allowed during the year to the amount of £39,538, so that the net amount was £1,367,431. During the same period the excise duties amounted to £272,102, and drawbacks and refunds to £1,437, leaving the net duty £270,665. The net import and excise duties together were £1,638,096.

The following table shows the net Customs' revenue, exclusive of harbour dues, etc., in each colony for the year 1896:—

Colony.	Import Duties.	Excise.	Total.
	£	£	£
New South Wales ...	1,367,431	270,665	1,638,096
Victoria	1,749,036	304,228	2,053,264
Queensland	1,267,702	71,773	1,339,475
South Australia	576,873	38,442	615,315
Western Australia...	988,829	....	988,829
Tasmania	328,919	18,919	347,838
New Zealand	1,765,073	70,066	1,835,139

A statement of the amount per head is apt to lead to false conclusions, for it has to be borne in mind that a low consumption of taxable goods under a high tariff may give a revenue per head not greater than a high consumption under a low tariff.

The gross Customs' revenue collected at Sydney, outports, and inland stations during the year 1896 is shown below :—

Station.	Amount.	Station.	Amount.
	£		£
Sydney	1,486,027	Mulwala	3,421
		Mungindi	101
Albury	22,514	Newcastle	123,281
Boggabilla	238	Richmond River	63
Bourke	12,861	Swan Hill Crossing	1,811
Brewarrina	1,395	Tocumwal	3,509
Cobram	1,153	Tweed River	38
Corowa	5,404	Wallangarra	1,032
Deniliquin	9,108	Wentworth	7,523
Eden	70	Wilcannia	11,791
Euston	868	Willyama	46,002
Genoa	1	Wollongong	272
Grafton	91	Paid direct to Treasury	935
Howlong	533		
Moama	9,812	Total ... £	1,759,236
Morpeth	9,382		

Exclusive of the receipts from the public wharfs, and of the payments received from the Marine Board, the revenue of the Customs Department in 1896 was £1,648,765; and the expenditure, including the value of the stores and stationery used during the year, £61,747, or £3 14s. 11d. for every £100 collected. This average cost, which is 7s. 11d. more than that in 1895, does not include the interest on £186,760, the capital value of the land and buildings occupied in the transaction of the Customs business.

FORESTRY AND FISHERIES.

FORESTRY.

FEW countries have such a wealth of timber as New South Wales possesses. Its woods are as varied as they are valuable, ranging from the ironbarks, unsurpassed for work requiring hardness and durability, to the kinds suitable for the most delicate specimens of the cabinet-maker's art. It must be confessed, however, that some varieties of timber trees, at one time very plentiful, and which, had they received attention at the hands of the State, would be plentiful still, are now hard to find in any district to which there is easy access. But this is the common experience of new countries, where the pioneers, whether settlers or timber-getters, cut down indiscriminately, giving no thought to anything but their immediate requirements.

The necessity of preserving the timber resources of the colony, and preventing the ruthless destruction of the best species of brush and hardwood which was being carried on, principally in the Clarence River district and in the eucalyptus forests on the Murray, led the Government, in 1871, to establish a certain number of Forest Reserves throughout the country, in which permission to cut timber should be granted upon payment of a fixed fee. It soon became apparent that stringent regulations alone could put a stop to the reckless operations of the licensed timber-getters; but it was not until September, 1878, that such regulations were issued. These appeared not a day too soon, as the best species of cedar, which abounded in the Clarence River districts, had been exploited to such a wasteful extent that the supply of this magnificent timber threatened to give out. Cutting down indiscriminately trees of all sizes, and clearing the lower lands of their best timber, the cedar-cutters, after disposing of all that could be cheaply transported, or easily floated down the rivers in time of flood, left a considerable surplus of felled timber on the ground to lie and rot. Then they travelled farther north, to carry on the same depredations along the rivers of the neighbouring colony of Queensland. The same system had been pursued in the gum forests of the Murray. Considerable quantities of excellent timber were destroyed in the forest reserves of that part of the colony, to the detriment of the district, which was deprived of its natural wealth, and to the injury of the colony at large, which suffered the loss of much of its best timber without receiving an equivalent in revenue.

In 1875 the office of Forest Ranger was first created, and this led to the formation, in March, 1882, of a Forest Conservation Branch, which was attached to the Department of Mines. During the year 1889 the Forest Conservation Branch was placed under the administration of the Colonial Secretary, but it was afterwards again brought under the control of the Minister for Mines and Agriculture. Another change, however, is to be made, and the branch brought under the Department of Lands. In the year 1882 the colony was also subdivided into a number of forest districts. These are inspected by forest rangers, whose duty it is to report on the existing state of proclaimed reserves, control the operations of licensed timber-getters, receive royalties on the various kinds of timber upon which such dues may be levied, and report upon applications to ringbark trees on Crown lands, whether comprised in forest reserves or otherwise. In performing many of these duties the forest rangers, it may be mentioned, are assisted by the mounted police force. The area of reserves under the supervision of the Department on the 30th June, 1897, is shown in the following table:—

Class.	Area in Acres.
Class A	2,913,061
Class B	128,995
Class C	2,554,465
Total	5,596,521

As shown in the above table, reserves for the preservation of timber are divided into three classes, according to their importance, and the particular quality and value of the timber which they contain; and, in addition, there are a small number of reserves which are at present only used for the purpose of planting selected species of trees.

Licenses are issued to cut timber on reserves in class A at a fixed fee of £6 per annum, or 10s. per month, without royalty; and on reserves in Class B the fee demanded amounts to £9, or 15s. per month. On reserves in Class C, general permits to cut timber for saw-mills are issued at a rate of £6 per annum, or 10s. per month, to which is added the payment of a royalty of not less than 3d. nor more than 3s. per 100 superficial feet, as may be decided by the Minister; provided that when the trees are suitable for splitting only the royalty may be charged at not less than 1s. 6d. per 100 cubic feet.

Licenses are also issued to cut and remove timber on ordinary Crown lands, except timber reserves, reserves for public recreation, sites for towns and villages, and areas permanently dedicated for any public purpose; also lands within 1½ chains of any navigable river, lands held under conditional or special lease, or measured for sale, or within an enclosure of less than 200 acres, or within half a mile of a head station. The fee in this case is fixed at £3 per annum, 15s. per quarter, or 5s. for any current month; and the license enables the holder to cut and remove any kind of timber except cedar, beech, blackwood, Moreton Bay pine, silky oak, rosewood, red and black bean, and coachwood, the license fee for cutting which is fixed at £6 per annum.

The prescribed girth, 5 feet from the surface of the ground (except ironbark, which is to be measured 2 feet from the ground), under which measurement no felling of timbers is permitted, is given in the subjoined table for the different species of trees :—

Timber.	Girth.		Timber.	Girth.	
	ft.	in.		ft.	in.
Red cedar	9	0	Cudgerie or Flindosa	6	0
Blackbutt	7	6	Blood-wood	6	0
Tallow-wood	7	6	Sassafras	5	0
Red gum or flooded gum	7	6	Yellow cedar	4	6
*Ironbark (of various species)	7	6	Black-wood	4	6
Hoop or Moreton Bay pine	7	6	Yellow box	4	6
Red bean	7	6	Stavewood	4	6
Black bean	7	6	Apple-tree	4	6
Onionwood	7	6	Blue fig	4	6
Mountain ash (*Flindersia australis*)	7	6	Bogum Bogum	4	6
Grey or blue gum	7	0	Corkwood (*Ackama Muelleri*)	4	6
Woollybutt	7	0	Blue-berry ash	4	0
Brush or white box	7	0	Pigeon-berry ash	4	0
Turpentine	7	0	Black, red, or white pine	3	0
Spotted gum	7	0	Swamp oak	3	0
Messmate	7	0	Forest oak	3	0
White beech	7	0	Red ash	3	0
Blue beech	7	0	Maiden's blush	3	0
Negro-head beech	7	0	Coachwood	3	0
Rosewood	7	0	Corkwood (*Endiandra Sieberi* and others)	3	0
Peppermint or red-wood	7	0	Native olive	3	0
Swamp mahogany	7	0	Beefwood	3	0
Forest red gum	7	0	Tulip	3	0
Silky oak (*Grevillea robusta*)	6	0	Water gum	3	0
Mahogany (forest and red)	6	0	Hickory	3	0
Mahogany (white)	6	0	Brigalow	3	0
*Stringybark	6	0	Myall	3	0
Box and grey box	6	0	Honeysuckle	3	0
White box	6	0	River oak	3	0
Eurabbie	6	0	Black oak	3	0
Mountain gum	6	0	Silky oak (*Orites excelsa*)	3	0
Grey gum	6	0	Brown pine	3	0

* West of Great Dividing Range, 4½ feet for ironbark and 4 feet for stringybark.

The license fee for stripping wattle-bark is fixed at not less than 10s. nor more than 40s. per month. No tree of less girth than 15 inches of the black or feather-leaf species, nor less than 12 inches of the golden or broad-leaf species of wattle, measured at 2 feet from the ground, is permitted to be stripped; and each tree is required by the regulations to be thoroughly stripped before the person so employed passes on to another. Permits are also issued for cutting piles and mining props, and for thinning out timber, in order to improve the growth of the trees remaining; and for cutting and removing from a reserve a specified number and kind of trees.

Infringements of the timber regulations are punishable by fine, not exceeding £5 for the first offence, £10 for the second, and £20 for the third, irrespective of the value of the timber and material destroyed, for which also the offender may be held responsible. The number of prosecutions for illegally cutting and removing timber for the period of twelve months ended 30th June, 1897, was 142, and convictions were obtained in 125 cases.

In the reserves subject to royalty, the quantity of timber cut during each of the past six years is shown below. It will be seen that the quantity has fallen off considerably :—

1891	11,760,497	sup. feet
1892	15,818,000	,,
1893	10,506,472	,,
1894	5,158,759	,,
1895	4,922,707	,,
1896	6,076,916	,,

in addition to which a large quantity of sleepers and piles was obtained.

The revenue of the Department from forestry in 1896 was £8,264, made up as follows :—

	£
Forest reserves—	
Permit licenses	191
Timber-cutters' licenses	816
Wattle bark licenses and miscellaneous	119
Royalty	4,035
Crown lands—	
Quarry, wood-cutters', cedar, and fuel licenses	2,721
Proceeds of sale of seized timber	186
Penalties	196
Total	£8,264

There was also a sum of £463 received from miscellaneous royalty and prickly-pear leases. The cost of administering the Department during the year was £8,356, being £371 less than the total revenue received. The amount received from the forest reserves and forest lands of the Crown in each year since the regulations were proclaimed on the 24th September, 1878, is shown below :—

	£		£
1879	7,310	1888	19,019
1880	8,328	1889	16,521
1881	10,156	1890	15,437
1882	12,327	1891	18,455
1883	16,301	1892	16,176
1884	17,565	1893	9,547
1885	13,144	1894	6,350
1886	13,934	1895	6,534
1887	13,629	1896	8,727

During the years 1895 and 1896 about 60,000 acres of red gum, 30,000 acres of pine, and 2,000 acres of coastal forests were improved by thinning-out and destroying the superabundant growths. This work was carried out with the object of ensuring the maturity of a larger number of trees to the acre, and, in consequence of the additional light and air afforded, of their reaching that stage in about two-thirds of the time that would be taken under natural conditions. The cost of the thinning-out operations averaged 5s. 8d. per acre in the red gum areas, 4s. 6d. in the pine areas, and 7s. in the coastal areas; and it is estimated that this outlay will return during the next twenty years two or three hundred marketable trees to the acre where the present unimproved average is but four or five trees.

The Forest Conservation Branch is charged with the direction of a State Forest Nursery, which is situated at Gosford, in the beautiful district of Brisbane Water, where the acclimatisation of valuable foreign timber trees, and the conservation of such of the best indigenous species as might otherwise be likely to disappear, are attended to. The area set apart for the nursery is 65 acres, of which 25 acres are cleared and cultivated. Among the indigenous trees which are raised there may be mentioned tallow-wood, blackbutt, beefwood, silky oak, yellow pine, Richmond River beech, the best varieties of ironbark, and red cedar, the red cedar seedlings on hand numbering over about 30,000. Of late, special attention has been paid to the cultivation of the white mulberry, in expectation of a demand for this tree in consequence of the increasing interest taken in the cultivation of silk in the colony. It is estimated that there are 28,000 mulberry trees of different varieties, in various stages of growth, in the nursery, besides nearly 100,000 exotic trees of economic value.

In addition to reforesting the Crown reserves with the best classes of timber, the State Forest Nursery distributes specimens among settlers in the sparsely-timbered areas in the Western District of the colony, and supplies them to municipalities, to the trustees of public reserves, and for the improvement of church and school lands and other purposes. Altogether, from 1890 to the end of 1896, over half a million plants were sent out of the nursery, the number for 1896 being 24,769, of which 11,120 were supplied to public bodies and private persons, and 13,649 were placed in reserves and other plantation areas. The number of merchantable plants remaining in the establishment on the 1st January, 1897, was estimated at 104,040, viz., 21,200 in pots, 17,100 seedlings in boxes, and 65,740 plants open-rooted.

The consumption of wattle-bark is very great in this colony, where it is in large demand for tanning purposes. During 1896, 93,549 cwt. of wattle-bark were imported, valued at £23,285, nearly 72,000 cwt. of this supply being obtained from Tasmania. It will thus be readily seen that there is room for a large development of the trade in New South Wales. The Forest Department has taken steps to prevent the indiscriminate stripping of the bark and the destruction of the trees, which should have the effect of stimulating the industry. The license fees for stripping wattle-bark in the various districts of the colony range from 10s. to 15s. per month.

Forestry is as yet only in its initial stages in New South Wales, and in fact in Australasia, and the establishment of a School of Forestry, in which the information necessary for the proper conduct of the work might be imparted, has been strongly advocated. The foundation of such a school would be of great benefit.

EXPORT OF TIMBER.

The depression which has affected the industrial life of Australia, in common with that of most other lands, has had the good effect of showing how desirable it is to diversify the industries of the country. In the past there has been an undoubted lack of enterprise in pushing an export trade, and a disposition has been evinced to rest content with what was being done in this direction with a few products of the pastoral and mining industries. This apathy seems now to have been shaken off, and it is very probable that the near future will see a large increase in the shipments of domestic produce, and a successful attempt made to supply local wants with various descriptions of goods which are now imported. With no article of commerce has the failure to approach consumers in the densely-populated countries of the old world been more marked than with timber. Although New South Wales is rich in hardwoods most suitable for use in the various forms of engineering construction, and an opening for this class of timber has long existed in the United Kingdom and America, until recently but little had been done to open up a trade with those countries. For many years the development of the local timber trade proceeded on the assumption that the forests of the colony afforded a never-failing supply of merchantable woods; this mistaken notion is not now entertained, but there can be little doubt that there is for the present abundance of good timber of every description, and the operations of the Forest Department promise to have the effect of continuing the supply. As already stated, the indigenous trees of the colony are being supplemented by the planting of good foreign species, and the late Director-General of Forests has given it as his opinion that the soil and climate of New South Wales are suitable to the growth of the favourite pines and hardwoods of commerce. It is, therefore, certain that, with the exercise of a reasonable amount of foresight, New South Wales would be able to favourably compete for a portion of the trade of countries less advantageously placed in respect of this important article.

The timber resources of New South Wales are more valuable than those of any of the other colonies, and include at least twelve different species of hardwood trees suitable for export. Notwithstanding this, however, the export trade of the colony is exceeded by that of Western Australia and of New Zealand. This will be seen from the following table, which gives the exports of domestic timber of each of the seven colonies during the past six years. Shooks and staves, doors, sashes, and other shaped articles are included in the figures; and sandalwood is credited to the colony of Western Australia:—

Colony.	Exports of Timber.					
	1891.	1892.	1893.	1894.	1895.	1896.
	£	£	£	£	£	£
New South Wales	53,780	59,028	41,565	34,030	45,029	46,830
Victoria	20,951	10,637	7,083	5,940	8,214	11,991
Queensland	16,671	17,925	5,187	2,720	2,570	5,304
South Australia	926	830	97	54	105	247
Western Australia	126,776	121,289	66,048	98,234	119,009	182,220*
Tasmania	44,778	39,301	18,090	20,347	32,685	32,997
New Zealand	189,760	92,866	106,603	122,686	147,511	136,109

* Estimated.

The explanation of the decline in the yearly values since 1891 is to be found in the stoppage of public and private works, consequent on the disturbed financial conditions prevailing in Australasia, the trade being essentially an intercolonial one. It will be noticed, however, that the trade shows a tendency to revive. Stronger efforts are now being made to capture a portion of the large timber trade of the United Kingdom, and the figures for 1896 show an improvement on those of the previous year. Strange to say, Western Australia leads the way here, its exports to the United Kingdom in 1896 being valued at £54,844. New Zealand comes second in its trade with England, the value of its domestic exports to Great Britain during 1896 being £19,147. The trade of New South Wales is largely with Victoria, and the decline shown in the table above is due to the smaller imports of that colony. New Zealand is also an important customer of New South Wales, taking a large quantity of ironbark girders, for use in public works, direct from the Northern rivers. During the last two years, however, New South Wales made a noticeable increase in its trade with the United Kingdom, the value of the exports to the mother country being £12,681 in 1896, and £10,797 in 1895, as compared with £1,253 in 1894; and the North Coast mills are now kept going at their full capacity in supplying timber for paving purposes and railway-carriage building, in execution of orders received from Great Britain.

The following table shows the value of the timber shipped to each country from New South Wales in 1896:—

Country.	Value.	Country.	Value.
	£		£
United Kingdom	12,681	Cape Colony..................	1,063
New Zealand..................	9,686	South Sea Islands	999
Victoria	5,740	Germany	526
Queensland	4,054	New Guinea..................	375
Netherlands	4,002	New Britain..................	226
South Australia	2,147	Other Countries	400
Fiji	1,778		
Western Australia	1,617		
New Caledonia	1,536	Total .... £	46,830

The other colonies of Australasia took 49·83 per cent. of the exports, and the islands of Polynesia, 10·77 per cent. The proportion of 27·08 per cent. went to the United Kingdom, as compared with 23·98 per cent. in 1895 and 3·68 per cent. in 1894, the value of the timber sent there being £12,681.

The exports in 1896 were made up of the following:—

Description.	Quantity.	Value.
		£
Dressed timber	39,052 sup. ft.	376
Rough ,, ...	9,020,141 ,,	42,341
Houses	7 No.	784
Sleepers............................	2,714 ,,	739
Palings	1,000 ,,	6
Posts and rails....................	8,029 ,,	307
Doors................................	74 ,,	38
Sashes	676 ,,	214
Shooks and staves	5,453 pkgs.	1,752
Shingles	5,000 No.	4
Spars	2 ,,	2
Paving blocks	4,350 ,,	24
Piles	165 ,,	224
Shutters	36 ,,	19
Total	....	46,830

Notwithstanding the great natural resources of the colony, the imports of timber are very considerable and largely exceed the exports, the value of the import trade in 1896 being £344,990. Of this sum, however, re-exports to the value of £26,579 were made, leaving the imports for local use at £318,411. The bulk of the timber which comes into the colony consists of pines and other soft woods, the native pine being in some respects inferior to Oregon and Kauri, but there are other soft woods equal to any of the timbers imported. The imports during the year consisted of dressed timber valued at £47,959, rough timber estimated at £268,364, and sundries, such as doors, sashes, shooks and staves, laths, shingles, and palings, worth £28,667. The bulk of the dressed timber in 1896 came from Norway, and, to a lesser extent, from the United Kingdom, Victoria, the United States, South Australia, Canada, and Queensland; while of the rough logs 21,753,448 feet came from the United States, 13,578,220 feet from New Zealand, 12,864,016 feet from South Australia, and 1,998,916 feet from Canada. The bulk of the United States exports are from Port Eureka, California; and the Canadian, from Puget Sound. The trade returns show a somewhat large importation from the neighbouring colonies, but these colonies are not the places where the timber was grown. Victoria supplies the Riverina district; and South Australia, Broken Hill, where there is a large demand for timber for mining purposes.

The figures which have been given show how small is the export trade of New South Wales in timber, and how open it is to development. It is in the hardwoods of the country that the chief expansion of trade may be looked for. Australian hardwood trees are remarkable for the great size of the beams which may be obtained from them, as well as for the extreme strength and durability of their wood. From the table given on page 68, it will be seen that the grey ironbark has a resistance to breaking equal to 17,900 lb. per square inch, as compared with a mean of 11,800 for English oak, and 15,500 for teak. None of the other timbers of the colony has so high a resistance to breaking as this description of ironbark; but nearly all the varieties have a greater strength than oak. The absence of branches for the greater portion of the height enables the timber to be obtained to the best advantage; and as full-grown trees of most varieties are rarely less than 100 feet high, with corresponding girth, the quantity of timber obtainable is very large. The characteristics of the principal species are dealt with in the chapter on "Flora," so that it is unnecessary to repeat them here; but it will easily be seen how valuable woods possessing such qualities would be found by persons engaged in building construction.

It has already been shown that the exports of timber from New South Wales in 1895 and 1896 compared favourably with those in previous years, and few sailing vessels left for England without taking supplies of hardwoods, ranging from 10,000 to 40,000 superficial feet, in pieces suitable for wood-blocking and the construction of railway trucks. This satisfactory advance is largely due to private enterprise, but is also in no small measure attributable to the forwarding of samples to and the distribution of pamphlets in England and on the Continent by the Forest Department of New South Wales, and a favourable feature of the shipments referred to is that they were orders and not consignments to test the market. The Government are fully alive to the importance of fostering the trade, and an officer of the Department of Mines has been appointed to inspect shipments of timber, and to brand the pieces with the initials of the name of the colony and of the kind of timber, and grant certificates therefor should he consider the wood to be of satisfactory quality and of the kind it is represented to be. It is hoped that this action will be supported by consignors, and that they will recognise the value of a Government certificate in the sale of their shipments, and so prevent the possibility of the market being unfavourably affected by consignments of inferior quality.

That the United Kingdom offers unlimited scope for the woods of New South Wales may be judged from the fact that it annually imports timber to the value of £20,000,000, or considerably more than the value of the whole domestic exports of the colony. In 1896 its import trade in timber came to £21,278,583, composed as follows:—

	£
Hewn :—	
Fir	3,026,595
Oak	862,011
Teak	705,224
Unenumerated	295,544
Sawn :—	
Fir	12,926,526
Unenumerated	454,054
Staves	656,246
Furniture woods and hardwoods :—	
Mahogany	477,265
Unenumerated	900,316
House frames, fittings, etc.	974,802
Total	£21,278,583

In this trade Australasia, with its valuable resources, shared to the extent of about £180,000, or 0·85 per cent., as compared with £140,000, or 0·82 per cent., of the total in 1895, and £66,000, or 0·36 per cent., in 1894. The largest participant was Sweden, with £4,488,169 ; Russia's portion was £4,414,454; Norway's, £1,607,507; Germany's, £1,193,050; France's, £670,954 ; Canada and the United States had respectively the quota of £4,238,845 and £2,806,377 ; while Burmah took £532,049 as its part. The hewn fir was pretty fairly distributed over the great countries of Europe ; the United States and Canada sent the greater part of the oak ; Burmah supplied from its forests three-fourths of the teak ; while more than half of the unenumerated hewn timber was furnished by Canada. The kingdoms of Norway and Sweden, the Russian

Empire, the Canadian Dominion, and the United States of America supplied the sawn pine; and the staves were principally the product of Germany, Russia, and the United States. The largest supplies of mahogany came from Mexico, British Honduras, and the Gold Coast, which between them furnished 31,703 out of 53,772 tons of this favourite wood with English furniture-makers. Included in the sum of £900,316 shown as the value of other "furniture woods and hardwoods" imported, is £132,691—the value of 31,955 tons of timber imported from the colonies of Australasia. Western Australia took the largest share with £98,431; then followed New South Wales, with £32,427; and Victoria, with £1,833. Any shipments from the other colonies were not enumerated. The house frames, fittings, and joiners' and cabinet work were mostly furnished by the United States, Germany, Sweden, Belgium, and France.

It is impossible to say how much of the timber exports of other countries could be displaced in the United Kingdom by Australian hardwoods and fancy timbers, but that the quantity is considerable cannot be doubted. Importers there have taken the best kinds offering for the purposes they had in view, and it is for New South Wales to show that many of its species of trees produce superior woods to those now used for certain classes of work. In the British Isles, whose coasts are so thickly studded with harbours, a vast quantity of timber is used for piers and jetties; and for this class of work, especially for piles, Australian hardwoods are very well fitted as compared with the woods of other countries, having a much longer life. For other constructive outdoor work, both above and below ground, in which strength and durability are desirable, for railway sleepers, and the paving ot streets, they are very suitable; while some of the hardwoods, such as the mountain ash, are fitted for the making of furniture. At the Chicago Exhibition the Commissioners for New South Wales Railways showed six sleepers, three of which had been taken out of the Suburban line after being in the road for twenty-four years, and three out of the Western line, near the Lithgow Zig Zag, which had been in the road for twenty-three years; and these sleepers were but little the worse for wear. The Forest Department also exhibited railway sleepers, made of ironbark and red gum, which had stood the test of seventeen to twenty-five years' constant use. A portion of the New South Wales Court was laid with wooden blocks of blue gum, blackbutt, tallowwood, forest mahogany, boxwood, and ironbark, showing the suitability of these hardwoods for paving purposes. The utility of these woods for such purposes has been proved in Sydney, the blocks, after subjected to heavy and continuous traffic for nearly ten years, having exhibited but slight wear. According to figures supplied by the City Surveyor of Sydney, the average wear of mahogany is $\frac{1}{8}$th of an inch per annum; of blue and red gum $\frac{1}{16}$th of an inch; of turpentine $\frac{1}{17}$th; and of blackbutt, $\frac{1}{26}$th of an inch. Professor Warren, in his work on "Australian Timbers," states that he is continually being shown specimens of timber, taken from bridges or piles in damp ground, which have been in use for forty to sixty years or more, and show no signs of decay whatever.

It is estimated by the Forestry Department that the area of ironbark lands belonging to the Crown is 16,870,000 acres, on which there is sufficient timber ready for cutting to yield 167½ million sleepers, and that if private lands are also taken into account the number of ironbark sleepers alone which the colony can produce may be set down at 500 millions, sufficient for no less than a quarter of a million miles of railway track.

The following is a list of the best of the New South Wales hardwoods of which there is an abundant supply, and the purposes for which they are most suited:—

Bastard Mahogany.—This tree grows to a height of 40 to 50 feet, with a diameter of 2 feet. The timber is strong and durable, and is suitable for boat knees and the felloes of wheels.

Blackbutt.—A height of 100 to 200 feet is attained by this tree, and its diameter ranges from 3 to 8 feet. It has even been found measuring 15 feet across, but this width is exceptional. It gives a first-class wood, strong and durable, and suitable for house carpentry, bridge planking, paving blocks, ships' decks, and other purposes of a similar kind.

Blue Gum.—This tree reaches a height of 100 to 120 feet, with a diameter of 3 to 5 feet. The timber is strong and durable, straight in grain, and is easy to work. It is used in building construction and ship-building, and for ships' planks, wheel naves and felloes, paving blocks, etc. An inferior growth of the same tree is known under the name of *Flooded Gum.*

Forest Mahogany.—The height of this tree ranges from 60 to 120 feet, and its diameter from 3 to 5 feet. Its wood is red in colour, and is strong and durable. It is suitable for paving blocks, fencing, beams, rafters, and rough carpentry.

Grey Ironbark.—This tree, which grows to a height of 100 to 150 feet, with a diameter of 2 to 5 feet, gives one of the very best of hardwoods. It is hard, heavy, tough, inlocked, and durable. It is suitable for piles, girders of bridges, railway sleepers, poles and shafts of carriages, and other like purposes.

Mountain Ash.—This tree reaches a height of 100 to 150 feet, with a diameter of 3 to 4 feet. Its wood is tough, durable, and elastic; and it splits easily. The timber is suitable for staves of casks, shingles, poles, shafts of drays, palings, rails, rough buildings, and some classes of furniture.

Narrow-leaved Ironbark.—A height of 100 to 150 feet is attained by this tree, with a diameter of 2 to 3 feet. Its wood is hard, heavy, strong, interlocked, and durable; and is suitable for railway sleepers, girders, spokes of wheels, poles and shafts of carriages, etc.

Grey Box.—This tree grows to mammoth size in the Southern districts of the colony. The timber is strong, durable, and fairly straight-grained. It is used for paving blocks, posts, building purposes, mauls, railway sleepers, etc.

Red Ironbark.—This eucalypt grows to a height of 100 to 150 feet, with a diameter of 3 to 5 feet. Its wood is highly valued for all purposes in which strength and durability are required. Large beams and girders, railway sleepers, and draw-poles, are some of the purposes for which it is extensively used.

She or Pale Ironbark.—This tree attains a height similar to that of the red ironbark, with a diameter of 4 to 5 feet. Its wood is highly appreciated, being hard, tough, strong, inlocked, and durable. It is used in bridge construction, and for railway carriages, poles of drays, spokes of wheels, piles, beams, and other similar purposes.

Spotted Gum.—This eucalypt derives its vernacular name from the spotted appearance of its bark. It grows to a height of 100 to 150 feet, with a diameter of 2 to 4 feet. The timber is strong, close-grained, elastic, and durable; and it splits well. It is suitable for paving blocks, ship and house building, girders, coopers' staves, cart and buggy shafts, etc.

Stringybark.—The *Eucalyptus microrrhyncha*, or stringy-bark, grows to a height of 50 to 100 feet, and a diameter of 24 to 54 inches. It gives a light, hard, strong, and close-grained wood, which polishes well. House carpentry, flooring-boards, and fencing are some of the purposes for which it is most suited.

Tallow-wood.—This tree, which grows to a height of 100 to 150 feet, with a diameter of 6 to 8 feet, gives a strong, durable, and handsome wood, which shrinks less than most Australian hardwoods, and rarely splits or shells. It is largely used for building purposes, especially for flooring; and for boat-building, piles, bridge-decking, and paving-blocks. The flooring of the fine new building of the Equitable Life Assurance Society of the United States, in Sydney, has been laid in parquetry with this wood.

Turpentine.—A height of 150 to 200 feet, with a diameter of 3 to 5 feet, is attained by this tree, the timber of which is much valued for piles, paving-blocks, posts, ship-building, girders, and other constructive purposes, being strong, hard, heavy, and durable, and most difficult to burn.

White Box.—This tree grows from 50 to 60 feet in height, with a diameter of 20 to 40 inches. The timber is hard, tough, and durable, and possesses great lateral strength. It is suitable for naves, felloes, scantlings, jetty, and bridge-piles, planking, fencing, etc.

Woollybutt.—This eucalypt reaches 100 to 150 feet in height, with a diameter of 3 to 5 feet. The timber, which is strong and durable, is suitable for house-building, wheelwrights' work, fencing, felloes, spokes, shafts, etc.

Fair average values in Sydney of the hardwood timbers which have been specified, are as follow :—

Kind of Timber.	Round piles: per running foot.		Girders: per cubic foot.		Scantling: per 100 sup. feet.	
	s.	d.	s.	d.	s.	d.
Bastard mahogany	1	4	1	6	9	0
Blackbutt	1	4	1	6	9	0
Blue gum	1	3	1	5	9	0
Forest mahogany	1	4	1	6	9	0
Gray ironbark	1	9	2	0	11	0
Mountain ash	1	6	1	9	10	0
Narrow-leaved ironbark	1	9	2	0	11	0
Red ironbark	1	9	2	0	11	0
She or pale ironbark	1	9	2	0	11	0
Spotted gum	1	3	1	5	8	6
Stringybark	1	3	1	6	8	6
Tallow-wood	1	6	1	10	10	0
Turpentine	1	3	1	6	9	0
White box	1	3	1	5	8	6
Woolly-butt	1	3	1	5	8	6

The cost of putting the timber on board vessels in Sydney is 9d. per 100 superficial feet, in addition to the prices quoted above. The freight from Sydney to London may be stated at 5s. to 6s. per 100 superficial feet for sailing vessels, and 8s. to 10s. for steamers. Wood-blocking timber is always shipped in full cut sizes, but in long lengths, say 15 to 25 feet, in order to prevent cracking and the extra expense of handling; it can, therefore, only be quoted, as in the table above, at per 100 superficial feet. Moreover, the size of the wooden blocks used by the municipalities in England varies.

The softwoods of the colony are found chiefly in the brush forests of the coast district, and rival those of any other part of the world. Some of the least known of the brush forest trees have wood grained and marked most beautifully, which is capable of receiving the highest polish, while others are fragrantly perfumed. These woods are adapted to the finest description of cabinet-meeting, and it is strange that their merits should have so long escaped attention. Amongst the chief varieties of woods of this class may be mentioned the red cedar, now unfortunately disappearing, the beautiful wood of which, somewhat resembling mahogany, is admirably adapted for the finer kinds of cabinet-makers' work. Some of the cedar trees grow to immense size, as much as 2,500 cubic feet of valuable timber having been obtained from one tree. In addition to the cedar may be mentioned rosewood, tulipwood, yellow-wood, white maple, white beech, myall, marblewood, mock orange, red and black bean, and many others. Besides their use for cabinet-making, many of the brush timbers are of great utility for the rougher kinds of carpentry, while some, both hard and soft woods, are admirably adapted for coach-builders' and coopers' work. The chief description of pine growing in New South Wales is the Moreton Bay white pine, found in the coast districts, as far south as the Bellinger. It is soft, light, and easily wrought, and suitable for all the interior woodwork of houses, as well as for cabinet-making. The red or black pine is extensively distributed over the Liverpool Plains, and in the Lachlan and Darling River districts, as well as around Berrima. It is beautifully marked in the grain, takes a fine polish, and has an agreeable fragrance. There are numerous other varieties of pine, but these resemble in their main features the trees already described. Colonial deal is an excellent timber, and is obtained in very large scantling, the tree frequently reaching 120 feet in height. It is soft, close-grained, easily wrought, and remarkably free from knots. Its use, therefore, is extensive for cabinet-makers' work and house fittings.

The beauty of colour and grain of many of these fancy timbers would, doubtless, cause them to be highly prized by furniture makers, if they were brought under their notice. Even if they could not be placed in London at the rates paid for the woods which are popular with cabinet-makers there at present, that would only be a slight drawback, as a large proportion of the British public are willing to pay a higher price for an article if they can thereby obtain something uncommonly beautiful. A description of some of the best of the soft and fancy woods of the colony, with their market values, etc., is given below in the same manner as the hardwoods have already been dealt with :—

Beech.—This tree, which attains a height of 100 to 150 feet, with a diameter of 3 to 5 feet, is one of the most useful of New South Wales trees, giving a strong, white, close-grained, and durable wood, which is easily worked, and is greatly valued for decks of vessels, flooring, turnery, and furniture-making. It is very suitable for bedroom suites.

Blackbean.—This tree grows to a height of 120 to 130 feet, with a diameter of 4 to 5 feet. The wood is handsome, dark-coloured, close-grained, and durable. It greatly resembles walnut, and is equally suitable for cabinet-making. Very handsome gun-stocks have been made of this timber.

Black Oak.—This timber, which grows from 40 to 50 feet in length, with a diameter of 18 to 24 inches, is also suitable for cabinet-making. It is used in the colony for bullock yokes, mauls, tool handles, and shingles.

Blackwood reaches a height of 50 to 80 feet in New South Wales, with a diameter of 18 to 24 inches. Like blackbean, the timber greatly resembles walnut, and is one of the colony's most serviceable furniture woods. It is highly valued for all kinds of cabinet-work, billiard-tables, and carriage building.

Coachwood is a light, soft, fragrant, close-grained, and tough wood. It is suitable for coach and boat building, and for cabinet-work. It grows to a height of 50 to 70 feet, with a diameter of 12 to 24 inches.

Colonial Pine reaches a height of 150 to 200 feet, with a diameter of 2 to 4 feet. The wood is pale in colour, and is strong and durable if kept continually dry or wet, but it soon decays if exposed alternately to dryness and dampness. It gives spars 80 to 100 feet long.

Common or White Pine varies in colour from light to dark brown. It is a very durable, knotty wood, takes a good polish, and has an odour of camphor. It is used for building purposes. The timber attains a height of 60 to 70 feet, with a diameter of 18 to 24 inches.

Forest Oak is another valuable wood for cabinet-making. It is a handsome timber, rather heavy. The tree grows to a height of 80 feet, with a diameter of 2 feet.

Rosewood is one of the largest and best of the trees of the colony. It is a strong, close-grained, and durable timber, red in colour, and rose-scented, and is of the greatest value for all kinds of cabinet-work. It would make an excellent substitute for mahogany, which is so largely used by English cabinet-makers. The tree reaches a height of 100 feet, and its diameter is 4 to 6 feet.

Myall.—This tree grows to a height of 30 to 40 feet, with a diameter of 18 to 20 inches. It is a hard, durable wood, and is greatly esteemed for the manufacture of glove and handkerchief boxes, etc., having a perfume of violets when unpolished.

Tulip-wood, which grows to a height of 50 to 60 feet, is a close-grained, hard, and firm timber. Its appearance is uncommon and attractive, being marked with irregular, longitudinal streaks of black and yellow, and it takes a fine polish. It would make handsome suites of furniture.

Silky Oak.—The *Grevillea robusta*, which attains a height of 70 to 80 feet, is one of the most suitable woods of the colony for boudoir and bedroom suites. Its colour is a light grey, beautifully crossed with silvery waves. It possesses a delicate lustre when polished.

Red Cedar.—This is a beautiful wood, much valued for the manufacture of furniture and for fittings of houses and ships. It is of a dark red colour, and, although light and easily wrought, is very durable. The tree commonly grows to a height of 100 feet, with a diameter of 6 feet; but it has been found 200 feet high, and of a diameter of 10 feet.

Yellow Cedar grows to a height of 50 to 60 feet, and a diameter of 2 to 3 feet. It is close-grained and durable, and polishes well. The timber is suitable for cabinet, carving, turning, and fancy work.

Yellow-wood.—The *Daphnandra micrantha* attains a height of 100 to 120 feet, with a diameter of 3 feet. The wood is yellow in colour, and fragrant; it is close-grained, easily wrought, and polishes well, and is very suitable for cabinet-making.

Satinwood is another timber yellow in colour. It is soft and silky to the touch, close-grained, and easily wrought. This wood is also suitable for cabinet-making, and is considered to be superior to the satinwood used in the English furniture trade.

Lignum Vitæ.—This is another white beech. It is smaller in its proportions than the beech already described, and grows to a height of 70 to 80 feet, with a diameter of 2 feet. It is used for similar purposes.

The following table shows the values in Sydney of the softwoods enumerated above, cut in planks or flitches:—

Kind of Timber.	Per 100 sup. ft.	Kind of Timber.	Per 100 sup. ft.
	s. d.		s. d.
Blackbean	22 6	Myall	35 0
Black oak	25 0	Tulip-wood	40 0
Blackwood	30 0	Silky Oak	25 0
Coachwood	22 6	Red cedar	30 0
Colonial pine	12 0	Yellow cedar	30 0
White pine	14 0	Yellow-wood	25 0
Forest oak	27 6	Satinwood	30 0
Rosewood	15s. to 21s.	Lignum vitæ	24 0

EUCALYPTUS OIL.

A volatile oil, which is extensively used for medicinal purposes and in manufactures, is distilled from the leaves of the eucalyptus trees of Australia and Tasmania. The quantity of oil obtained varies according to the species and the district in which it is found; but the percentage yielded by a few of the best known kinds may be set down as under:—

Eucalyptus amygdalina	3·313 per cent.
,, *oleosa*	1·250 ,,
,, *leucoxylon*	1·060 ,,
,, *goniocalyx*	0·914 ,,
,, *globulus*	0·719 ,,

The *E. amygdalina* and the *E. globulus* give the principal oils of commerce. The latter species takes kindly to foreign soil and climate, and its cultivation has rendered habitable parts of countries which otherwise would have been hot-beds of fever. Algeria and California are formidable competitors with Australia and Tasmania for the supply of the requirements of the world in the matter of eucalyptus oil. A record of the exports of this article is only kept at Sydney. In 1896 the shipments from this port consisted of the following:—

Country.	Packages.	Value.
	No.	£
United Kingdom	74	286
Germany	52	219
Belgium	8	38
United States	1	3
Total	135	546

FISHERIES.

The seas that wash the shores of New South Wales abound with fish, but none of the other resources of the colony have been so much neglected as the fishing industry. Splendid fishing-grounds extend along the whole length of the coast, which presents many natural features peculiarly favourable to the existence of a very large supply of the best food fishes. In the quiet waters of its numerous bays and estuaries, and in the vast lakes and lagoons communicating with the sea, are found shelter and sustenance, as well as excellent breeding-grounds. The principal fishes found on the coast are not migratory, and as a consequence may nearly always be procured in the market. It is unnecessary to dwell here on the value of the many food fishes to be found in the waters of the colony, as that has already been dealt with in the chapter on "Fauna"; but it may be repeated that the late Rev. J. E. Tenison-Woods placed the number of edible species at 105. With an unlimited supply, however, the fishing industry has long been in an unsatisfactory condition, and fish is, with few exceptions, scarce and dear.

That there is no lack of a market for good fish in the colony may be gathered from the fact that fresh, frozen, and preserved fish are imported annually for local consumption to the value of nearly £89,000 sterling. The imports, although showing an increase in 1896, are not now so great as they were a few years ago, having diminished since 1889, when the quantity imported for home consumption was valued at £130,757. This decline, however, cannot be attributed to any great increase in the supply of the local product, with a corresponding fall in the price demanded, for the transactions of the Eastern Fish Market showed a steady contraction until 1895, the latest year for which a record of the sales was kept. It is believed that the volume of business at this market was less in 1896 than in the previous year; but it is impossible to say what is the extent of the fish supply of the metropolis. The returns for the City Corporation's market at Woolloomooloo show that the following quantities of the principal species were received there during the four years ended 1895. Similar information for 1896 is not available :—

Kind.		1892.	1893.	1894.	1895.
Schnapper	dozen	1,927	2,585	4,566	5,650
Teraglin	,,	1,507	1,896	3,281	4,013
Nannegai	,,	703	491	953	569
Whiting	,,	12,681	5,031	8,671	11,393
Flathead	,,	3,010	2,931	9,021	*
Jewfish	,,	5,036	6,895	17,894	17,675
Kingfish	,,	1,162	409	1,095	1,193
Rock Cod	,,	629	310	233	34
Soles and Flounders	,,	1,592	1,244	1,808	1,184
Mullet	,,	23,145	8,761	19,155	39,839
Crawfish	,,	3,766	5,131	5,241	4,620
Garfish	baskets	3,329	2,082	3,155	3,683
Prawns	,,	3,246	3,950	5,788	5,365

* Not stated.

There are two private markets in Sydney, and the business transacted at these seems to be increasing, while it is diminishing at the Corporation's market. Fresh fish, however, does not seem to be much more plentiful now than it was in former years, and it is little cheaper, its retail price usually placing it beyond the reach of the greater number of the people. Imported fish has fallen in price ; but the reduction in the value of the imports has not been caused principally by this fact, but by the smaller quantity brought into the colony. The following table shows the imports of fish for home consumption during the past eight years :—

Year.	Fresh and Frozen.	Preserved.	Total.
	£	£	£
1889	1,331	113,260	114,591
1890	2,830	99,101	101,931
1891	3,662	70,927	74,589
1892	4,065	69,951	74,016
1893	4,919	63,953	68,872
1894	3,016	42,727	45,743
1895	2,375	52,098	54,473
1896	4,869	83,870	88,739

Although fresh fish is scarce, and there is a large import of the preserved article, a small quantity of fish drawn from the waters of the colony is annually exported, the amount sent away in 1896 being as follows :—

Fresh	£5,656
Frozen	38
Preserved	3
Total	£5,697

The control of the fisheries of the colony is placed in the hands of a body of five unpaid Commissioners, who are appointed for a term of five years, and who, through their salaried inspectors and assistant inspectors, and other officers, supervise the fishing industry of the colony, and see that the regulations which they have issued in regard to the dimensions of nets, the closing of tidal waters to net-fishing, and other matters, are observed. The marine fisheries embrace three divisions—the Northern, extending from the Tweed River southerly to Port Stephens; the Home division, from Port Stephens to St. George's Basin; and the Southern division, from St. George's Basin to Cape Howe. Each of these divisions comprises many important grounds. The inland fisheries are not very important, including chiefly the rivers Murray, Murrumbidgee, Lachlan, and Darling; and Lake George. Every fisherman must apply for a license yearly, the fee being 10s., which is reduced to half the amount if the license is issued in the second half of the year. A license must also be taken out for every fishing-boat, the fee being £1, which likewise is reduced by one-half if granted after the 30th June. Penalties are imposed by the Fisheries Acts for breaches of the regulations of the Commissioners.

The number of fishing-boat licenses issued during the year 1896 was 214, and the number of licenses granted to fishermen was 895. The class of boat used for fishing purposes in New South Wales is poor, and very little improvement is likely to result to the industry if the present fishermen are left unaided with their primitive appliances, and others of a better class, provided with capital, are not induced to take up the industry.

The fees derived from the issue of the 1,109 licenses mentioned amounted to £591. What the actual returns of the fishermen were it is impossible to say. No record was kept in 1896 of the sum realised at the Eastern Market at Woolloomooloo; but the sales at two private markets during that year amounted to £13,690. The great bulk of the fish came from the stations in the Home division, the largest number of baskets being obtained from Lake Macquarie, followed by Sydney Harbour, the Tuggerah Lakes, Wollongong, and Botany.

For the purpose of oyster culture, the Crown grants leases of the foreshores of tidal waters, which may be defined as between the mean high and mean low water mark. The rental is 20s. per annum for every 100 linear yards. The maximum length for which a lease may be obtained is 2,000 yards; but as the same person may take out more than one lease, the portion of shore which may be acquired is practically unrestricted by the Oyster Fisheries Act. The lease may be taken for a term of twelve months, with right of renewal from year to year; or for a longer period, not exceeding fifteen years, renewable from time to time on the application of the lessee during the twelfth year of the term. Leases of deepwater or natural oyster beds are also granted for an area not exceeding 25 acres, at a rental which must not be less than £2 per acre. During the year 1896, 241 applications for leases of areas of from

100 to 1,000 yards, representing a total area of 68,806 yards, were made; while, at the end of the year, the existing leases numbered 368, and the length of foreshore held was 134,500 yards. The deposits paid with the applications for leases amounted to £677, while the rentals received from leased areas came to £1,346 during the year.

Owing to bad management, the oyster-beds of Port Jackson, Port Stephens, the Hawkesbury, and the Shoalhaven were greatly injured, so that the markets of Sydney have to depend upon the beds of the Manning, the Richmond, and other northern rivers, as well as places beyond the colony, for their supply of oysters. The appointment of the Fisheries Commission in 1880 probably prevented the entire extinction of the oyster industry in New South Wales, though the operations of the Commission have been much impeded through lack of sufficient legislation to enable them to check the improvidence of the lessees, who, with few exceptions, strip the oyster-beds without regard to future supply. There is but little doubt that the establishment of "parcs" like those which may be seen along the coasts of France and Belgium, where oyster culture is conducted on scientific principles, would be remunerative, as the demand for this delicacy is great, and continually increasing.

During the year 1896, 12,287 bags of oysters were obtained from the tidal waters of the colony, being a satisfactory increase on the takes of previous years. The localities from which the supply was obtained in 1896 were as under:—

Locality.	Bags.	Locality.	Bags.
Wallis Lake	1,859	Tweed River.	573
Clyde River	1,704	Hastings River	481
Hawkesbury River	1,488	Evans River	454
Hunter River	1,231	Bellinger River	322
Manning River	1,205	Other places	585
Port Stephens	1,136		
Camden Haven	669	Total	12,287
Richmond River	580		

In addition to the above supply, 5,629 bags of oysters were imported from other colonies, their value being set down at £6,123. Of this quantity, 3,276 bags came from Queensland, and 2,060 from New Zealand. A bag of oysters contains 3 bushels, and at the beginning of 1897 the price per bag of good oysters in Sydney ranged from 25s. to 30s.

The number of persons convicted in 1896 under the Fisheries and Oyster Fisheries Acts was forty-three, the penalties imposed by the magistrates amounting to £96 15s. Below will be found a classification of the offences of which these persons were proved to have been guilty, with the total amount of fines imposed for each class :—

Offences.	Persons.	Fines.		
	No.	£	s.	d.
Using illegal nets	2	4	0	0
Fishing in closed waters	12	32	0	0
Fishing without license	5	............*		
Selling undersized fish	2	2	10	0
Stalling	8	14	0	0
Removing oysters from Reserve	2	10	0	0
Taking oysters from Lease	2	5	5	0
Removing oysters without notice	1	2	0	0
Not marking Lease	2	2	0	0
Not informing shipment of oysters	1	1	0	0
Abusive language to Inspector	2	7	0	0
Taking oysters after sunset	2	15	0	0
Unbranded bags	2	2	0	0
Total	43	96	15	0

* Cautioned.

The unsatisfactory condition of the fishing industry of the colony has on several occasions occupied the serious attention of Parliament and of the Government of the day. The latest effort to place it on a basis on which it may be built up to the large proportions to which it ought properly to attain was the appointment of a Royal Commission in 1894 for the purpose of reporting on the best means to carry out the object in view. This body heard a great deal of evidence on the state of the industry, and visited several of the other colonies in order to see personally what had been and was being done in regard to the fisheries. As a result, they recommended in their report, which was presented to Parliament in June, 1895—that further legislation should be passed for the purpose of regulating the industry; a systematic exploration of the coast made in a properly equipped trawling vessel, to determine the capabilities of the deep-sea fisheries; live fish transmitted to market by means of well-boats; refrigerating cars adopted for transmission of fish by rail; a central fish market erected near Darling Harbour Railway Terminus, with urban and suburban auxiliary markets; the middleman abolished, and authority given to fishermen to vend their own fish; fish-carts substituted for the present system of hawking with basket and barrow; and other proposals of an important character carried out. Towards the close of 1896 a Government Bill for the better regulation of the fisheries and the fishing industry was prepared and presented to Parliament, but lack of time prevented the House from dealing with it.

THE WHALE FISHERIES.

At a time when efforts are being made to revive the whale fishery, it is interesting to trace the history of what was in the early days regarded by many as likely to become the staple industry of the colony. In the year 1791, three ships are recorded as having sailed from Sydney harbour for "the fishery." These were all convict transports, one of which, the Britannia, a vessel belonging to the whaling firm of Samuel Enderby and Sons, is said to have been the first ship to pursue the fishery on the Australian coast. In 1793, Enderby joined the British Government in the expense of fitting out a ship to undertake a voyage to the South Seas, with a view to extend the whale fishery there; and in the following year the ships of this enterprising speculator were actively engaged in whaling off the coast of New Zealand. It was the custom of ships, such, for instance, as those owned by Campbell, one of the earliest of Australia's merchants, to import teas and sugars from Bengal, and British manufactures from England, such as cotton and woollen goods, hats, and other articles, and to obtain a return cargo of oil and skins; although the oil export was relinquished subsequently on account of the duty imposed on its importation into England. The whale fishery was particularly flourishing during the first years of the colony's settlement, and it afforded employment to a considerable number of persons. In 1802, ships were again despatched to pursue the whaling industry off the coast of New Zealand; but according to the evidence of Mr. Campbell, given in 1812, the oil-fishery in Australian waters was then entirely stopped, as the duty and the heavy freights prevented its importation into England, and colonial vessels were not allowed to navigate beyond the limits of the territory. The sealing industry was, however, continuously pursued. In 1823, the firm of Enderby and Sons fitted out a ship to prosecute the fishery off the Seychelle Islands, and the southern branch of the industry experienced a decided revival.

Up to this time no sperm oil had arrived in England save that imported in the ships engaged in the actual fishery of the animal, but in 1823 entries were made in the English Custom-house of sperm oil imported from the colonies, chiefly from Sydney, although the whole quantity so introduced was only 6,083 tuns, the colonial oil being partly the produce of vessels fitted out for the trade from Sydney and Van Diemen's Land. In all probability this oil was that obtained from the black, or right whale, the breeding-grounds of which animal were to be found in Cook's Straits, where what in whaling parlance were termed "shore parties" established themselves for the purpose of killing the whale, the produce of which was sent on to Sydney. The value of the trade in whale oil may be appreciated from the fact that during the year 1827 the total quantity imported into England was 5,552 tuns; and in 1828 the total produce of the New South Wales fisheries alone was 298 tuns of sperm oil, 50 tuns of black oil, 118 tuns of the oil of the sea-elephant, and 7,647 sealskins. The English import fluctuated considerably, but reached its maximum in 1831, when it was recorded as 7,605 tuns.

In 1829 a certain William Sutton went to Portland Bay, and established himself at Whaler's Point, where, during the next few years, he founded a whaling-station, and engaged also in sealing. Here, too, the Hentys came; while the industry had been carried on in Tasmania since 1816, Frederick Henry Bay being the first fishing-ground in that island. In 1830, no less than seventeen ships belonging to Port Jackson were engaged in whaling, a number which had grown to 35 in 1833, and in 1834 to 40, the largest of which was of 365 tons, and the smallest of 80 tons burthen. In the first years of the colony's history the sperm and black oil fisheries, particularly the former, presented a fair field for the investment of capital on a large scale; but by this time the sums embarked in the industry were so considerable that further enterprise had little encouragement. Moreover, the immediate returns were of so precarious a character, and the risks and losses so serious, that a speedy and steady return for capital invested could not be expected, and speculators preferred to put their money into squatting pursuits. The value of the whale fishery to Australia in 1834 may be seen from the fact that while the vessels sailing from Sydney numbered 40, the total number engaged from English ports in whaling in all parts of the world was 90, of from 300 to 400 tons burthen. In 1839, no less than 1,229 tuns of black oil, valued at £41,341, were exported, principally to Great Britain; and 1,279 tuns of sperm oil, valued at £111,280. In 1840, the importation of sperm oil into Great Britain was 5,722 tuns, of which quantity 1,719 tuns were from Australia, exceeding slightly the importation from America, which was 1,717 tuns, but the latter had to pay the high duty on foreign "take" of £24 10s. per tun. The reduction of the duty on the importation into the United Kingdom of foreign whale oil is said, however, to have destroyed the southern whale fishery as far as England itself was concerned; the number of ships fitted out in British ports being in 1841, nineteen; in 1842, eleven; and in 1843, only two, while seven whalers were laid up in port, six were sold out of the trade, and eight were offered for sale. Ships continued to be sent forth from Australian ports, however, and about this time Mr. Benjamin Boyd, whose career in New South Wales was so interesting, and whose death was so tragic, established a whaling-station at Twofold Bay, at a depôt named, after himself, Boyd Town, whence, for some years, vessels were despatched to the southern whaling-grounds, and the pursuit actively prosecuted.

The colonists of Western Australia had also engaged in the whale fishery, but they appear to have been so successfully competed against by the superiorly-equipped Americans, who established a permanent station at Port Leschenault, that they relinquished the industry. The practice of Australian whalers of killing the calves, in order to secure the capture of the mothers, did great damage to the fishery by wastefully thinning out the product, and in 1843 the animal was remarked as becoming somewhat shy and scarce in southern seas. By the year 1847, when the industry had died out entirely in Tasmania, it was noted that it was likewise declining in southern waters generally, and that Australian shipping was engaging more exclusively in colonial trade, although many craft were still at work in whaling on different parts of the coast; and the "take" for years afterwards comprised an export of much value. In 1850 this amounted to 576 tuns of sperm and 16 tuns of black oil, and nearly 14 tons of whalebone, together of a total value of about £29,000; while during the following year the export was 588½ tuns of sperm and 13 tuns of black oil, and nearly 67 tons of whalebone, together of a value of close upon £26,000. The value of the total quantity of whale oil exported from New South Wales has been estimated at about £3,000,000, and from Tasmania at about £1,200,000.

Early in the fifties the whaling industry gravitated to New Zealand, which was found to be central to the fisheries in the South Seas, and a convenient position for the establishment of "shore" parties. Indeed, to this day it is usual for old whalers to animadvert on the New Zealand method of securing the cretacean as having, more than anything else, conduced to the extinction of the animal. The New Zealand fishery was initiated by Captain Eames, from Auckland Harbour, early in the year 1852; but the decline in the industry was henceforward very rapid. In 1850 there were upwards of four hundred whaling vessels in the Southern Ocean alone; while in 1872 there were but seventy-two ships in the middle ground. In fact, the fishery totally died out; but of late years it has again attracted attention, and a small number of vessels prosecute the industry during the season.

MINES AND MINERALS.

THE progress of the Colony during the first sixty years of its histor viewed in the light of later events, seems painfully slow an somewhat uncertain. Yet the earlier colonists must have been consciou of the vast heritage destined to become the fortune of Australia, fo on no other supposition can their sacrifices and exertions be understoo To the nations of the Old World this was practically an unknown lan and it was not till the story of the gold discoveries was noised abroa that the importance and possible future of Australia were in any wa realised.

Gold-mining was for but a brief period the leading industry of the colonies, even in the wonderful years that succeeded the memorabl discovery of Hargraves. Now, amongst the minerals obtained in Ne South Wales, it yields in importance to silver, and in some years to coal whilst compared with that of pastoral and agricultural produce the valu of gold procured is inconsiderable. The discovery of gold, neverthele made Australia a nation, for the current of immigration which set sout ward on the presence of the precious metal becoming known has neve ceased. Thousands of men in the prime of life, who had been attracte to these shores by the hope of fortune easily acquired on the fields o the Turon and Bendigo, seeing patient industry everywhere rewarded remained to share the general prosperity, and those who came to dig fo gold readily turned their attention to their former, but less exciting pursuits.

Although the settlement of New South Wales has not been affected b the discovery of gold to the same extent as that of Victoria, yet the numbe of persons engaged in actual search for the precious metal was at one tim considerable. This number, however, has gradually decreased as the fields have been despoiled of the treasures contained in their easily worked alluvial deposits. The abandonment of a gold-field is not, of course, always a loss to the country. After the excitement has died out, the digger makes room for the agriculturist, and resources of a more permanent character are developed in parts of the colony which but for the prospector would have been unknown, and but for the farmer would have remained a wilderness. Gold-mining now requires the expenditure of capital for the erection of plant and gold-saving machinery; and the miner whose stock-in-trade of gold-digging appliances consisted solely of a pick, a shovel and a tin dish, has had, in the great majority of instances, to seek other fields of labour. Still, the mining industry of the colony is in a flourishing condition, and maintains in employment a fair proportion of the people. Many of the gold-miners have turned their attention to the silver, copper, and tin mines, and the coal and shale mines also find occupation for large numbers.

MINING ON CROWN LANDS.

A miner's right is issued for a period of one year or of six months from any date, the fee payable being 5s. and 2s. 6d. respectively. It secures to the holder the privilege of entering upon Crown lands and mining for gold or any other mineral; of occupying a residence area of a quarter of an acre; of diverting and using water for mining and domestic purposes; and of using, for mining or building purposes, timber, bark, stone, and gravel if these are not on exempted or reserved lands, or within the operation of a prohibitory proclamation. In searching for gold the holder of a miner's right may mark off on alluvial ground a prospecting protection area ranging from 600 feet long by 1,200 feet wide to 1,400 feet long by 2,800 feet wide, according to the distance from the nearest protection area or mining tenement producing gold; and when payable gold is struck he is entitled to take up, as a reward for his discovery, a prospecting claim half the length and a quarter of the width of the protection area. Other forms of occupation of alluvial ground under miner's right are block claims, frontage areas and claims, extended alluvial claims, and river and creek claims, all of which are governed by special regulations. In quartz country the prospecting protection area cannot exceed a width of 400 feet; but the length ranges from 480 to 960 feet according to the distance from the nearest mining tenement producing gold. The claim which may be marked off when payable gold is discovered is half the length and the full width of the protection area. Ordinary and extended quartz claims may also be taken up under miner's right; and special regulations govern water-rights, residence areas, and machinery areas, the last-mentioned representing 2 acres of land to which a person erecting quartz-crushing or other machinery for extracting gold becomes entitled. Special leases of increased areas may also be granted for gold-mining purposes where unusual difficulties exist in working the ground; but in any such case the maximum area cannot exceed 100 acres. The number of miners' rights issued during 1896 was 27,278, and the revenue derived therefrom amounted to £10,147.

It is only the holder of a miner's right who may take out a gold-mining lease. The area for which an ordinary lease is granted ranges from 1 to 25 acres, or less than 1 acre by conversion of a mining tenement; and the term for which it may be taken out ranges from one to fifteen years. The annual rent payable is fixed at £1 per acre or portion thereof; and when application is made for the lease, the first year's rent must be paid, together with a survey fee ranging in amount from £1 for 1 acre to £3 10s. for 20 to 25 acres. One man must be employed for every 2 acres of ground taken up. No assignment, mortgage, sub-lease, or encumbrance can be made in connection with a gold-mining lease unless with the sanction of the Secretary for Mines. The holder of a miner's right or of a lease under the Act of 1874 may apply for a permit to mine for gold or for any other mineral under roads, streets, navigable waters, or commons or reserves. The rent payable under an authority to mine for gold is 10s. per acre per annum; but in the case of small areas, the holding of miners' rights may be imposed as a condition instead of the payment of rent. A permit to search for gold on a residential lease on a gold-field may be granted to the lessee thereof, or to any person other than the lessee, provided he be the holder of a miner's right. Business licenses, operating upon gold-fields, are granted at the rate of 20s. per annum, or 10s. for six months from date of issue. They entitle the holder to the occupation, for the purpose of residence or of carrying on business, of one-quarter of an acre in township sites, or of 1 acre on other Crown lands. Within twenty-eight clear days after the issue of the certificate of conditional registration, improvements in buildings must be made to the value of £10, otherwise the area taken up is deemed to be abandoned. During the year 1896 there were issued 2,285 business licenses, the fees therefrom amounting to £1,172.

Before the close of the year 1896, when an Amending Act was passed, a miner's right could not be used in connection with the search for and the winning of minerals other than gold, the equivalent authority being termed a mineral license. Now, a miner's right confers on the holder all the rights and benefits secured by a mineral license, and the fee payable for the latter, which was formerly 20s. for one year, has been reduced to 5s. for twelve months and 2s. 6d. for six months, as in the case of a miner's right. For the purpose of searching for opal, the holder of a miner's right or a mineral license is permitted to take possession of and to occupy 400 by 400 feet of Crown lands, and for other minerals an area of 40 acres; but the area which may be occupied for the purpose of mining for and winning minerals is much less, being 100 feet by 100 feet in the case of opal, and 4 acres in the case of other minerals. A mineral prospecting area is the term applied to land occupied in searching for minerals, and a mineral claim that applied to land occupied in mining for and winning minerals. For the purpose of searching for coal, the holders of sixteen miners' rights or mineral licenses may conjointly take possession of not more than 640 acres as one mineral prospecting area; and for any other mineral than coal, gold, or opal, the holders of two rights or licenses may take possession of not more than 80 acres. The extent of land which may be taken possession of conjointly as a mineral claim is not more than 12 acres, by the holders of three miners' rights or mineral licenses, in the case of minerals other than coal, gold, or opal; and not more than

200 feet by 200 feet, by the holders of four miners' rights or mineral licenses, in the case of opal. Within twenty-eight days of the discovery of opal, the occupier of a prospecting area must mark off and occupy a mineral claim 200 feet by 200 feet, which must be worked by not less than two men. In the case of other minerals, application must be made within thirty days of discovery for the conversion of the prospecting area into a mineral leasehold. A holder of a mineral license is allowed to occupy, for the purpose of residence, a piece of land not exceeding in extent a quarter of an acre, and is entitled to the use of water under certain conditions. In the course of the year 1896, 1,298 mineral licenses were issued, the revenue derivable therefrom being £799.

A mineral lease is granted for the purpose of mining for any other mineral than gold, and it is not necessary that the applicant for such should be the holder of a miner's right or a mineral license. In the case of coal the minimum area which may be leased, unless with the special consent of the Secretary for Mines, is 40 acres, and the maximum 640 acres; for other minerals the area may not be more than 80 acres, nor less than 20 acres, except, as in the case of coal, with the sanction of the Minister; but there is nothing to prevent a person holding more than one lease. The term for which a lease may be granted ranges from one to twenty years, and the annual rent, which is payable in advance, is at the rate of 5s. per acre. Coal-mining leases carry a royalty of 6d. per ton upon all coal raised, the rent being payable until the amount is exceeded by the royalty, when the latter only becomes payable. Reserved lands may be leased subject to the same conditions as Crown lands, unless the mineral sought is coal, in which case the annual rental is fixed at 2s. per acre if the surface of the land or any part of it is required, 1s. 6d. per acre where no surface is required, and 1s. per acre if wholly under water. The royalty payable, however, is the same as that charged in leases of Crown lands. The labour conditions of the leases mentioned are proposed by the applicant, and are subject to approval by the Secretary for Mines. All dealings in connection with these leases are the same as in gold-mining leases. The holder of a miner's right, or of a lease under the Act of 1874, may be granted an authority to mine for minerals under roads, streets, navigable waters, or commons or reserves. For coal the rent is 2s. per acre per annum, with a royalty of 6d. per ton of large coal and 3d. per ton of small coal. If the royalty exceeds the rent, then the former only is payable. In the case of other minerals except gold, the royalty payable is at the rate of 5 per cent. on the value, with a rent similar to that charged for coal lands. In the case of small areas the holding of a mineral license may be imposed as a condition in lieu of payment of rent.

At the close of the year 1896, the area held under lease to mine for gold was 12,906 acres, and for other minerals 62,033 acres, making a total of 74,939 acres of Crown lands held under mining lease. Under application to lease, the area of auriferous Crown lands held was

5,128 acres, and of lands upon which other minerals were being so 3,531 acres, giving a total of 8,659 acres of Crown lands held u application to lease.

MINING ON PRIVATE LANDS.

Certain of the Crown lands of the colony have been alienated time to time, subject to various reservations with respect to gold other minerals which might afterwards be found therein. Other la again, have been alienated without any such reservation; but as the established law of England that the right to the royal metal does not pass from the Crown unless by express conveyance, o alienated lands has the precious metal remained the property of State. Under the Crown Lands Act of 1884 owners of lands alien under that Act, or under any Act thereby repealed, and in respec which the right to minerals was reserved by the Crown, were gra permits to remove such minerals, subject to the payment of roya and under the Mining Act of 1889 authorities might be issued to person to dig and search for gold and other minerals on all lands wl after the commencement of the Act, might be sold conditionally auction, in virtue of improvements, or otherwise, and upon any l which had been or should thereafter be leased conditionally under Crown Lands Act of 1884; and in the event of these lands being f to contain gold or other minerals, provision was made for the cancella of the sale or lease. The Mining on Private Lands Act, which passed in June, 1894, provided, however, for the conversion into sp leases of all permits of this kind which had been granted to owner private lands for the purpose of removing gold, silver, lead, tin, antimony, provided application was made within two months of passing of the Act; and in all cases where a special lease was so obta payment of royalty ceased. But in respect to all other minerals payment of royalty by owners of private lands, as reserved in the mits granted under the Crown Lands Act of 1884, and the powe issue searching permits under the Mining Act of 1889, were allowe stand. To gold-mining, all lands alienated or in process of aliena are, of course, open; but to mining for the other metals, only t lands in respect to which the rights are expressly reserved in the Cr grants. The surface of lands enclosed and under cultivation is, ex with the consent of the owner, exempt from the provisions of the but leases of such lands below the surface, at such depths as ma sufficient to protect the surface from damage, may be granted. La within the boundaries of any town or village are exempt, u proclaimed by the Governor to come within the operation of Act. Crown lands held under certain forms of lease, or rese for various public purposes, also come within the scope of the Act special proclamation to that effect be issued.

The holder of a miner's right or a mineral license may obtai authority, for a term not exceeding twelve months, but renewable i discretion of the warden, permitting him to enter upon private lands for the purpose of prospecting for gold, silver, lead, tin, or antimony. The area is defined by the warden, having regard to the nature of the deposit to be sought for, and mining operations may be carried on subject to the payment of rent and compensation fixed by the warden. The rent is payable quarterly in advance. The area must not exceed 20 acres in the case of ordinary auriferous lands, nor 40 acres where the natural conditions will render mining operations difficult and costly; while for other minerals the maximum area is 80 acres. These authorities may be converted into leases, the rent payable being £1 per acre per annum. The term of the lease cannot exceed 20 years, but subject to certain conditions renewal for a similar period may be obtained. In gold-mining one man must be employed for every 5 acres; and in mining for silver, lead, tin, and antimony, one man for every 10 acres. Owners of private lands may obtain special leases for mining purposes without payment of rent. They are also privileged to enter into agreements with holders of miners' rights or mineral licenses for the latter to take possession of the land for mining purposes as if it were Crown land. In such cases it is not necessary to take out a lease under the Act; but the land must be held and worked subject to the regulations of the Mining Board in force for the time being. Subject to the approval of the Secretary for Mines, owners may also make agreements with respect to lands other than alluvial auriferous, or grant leases of the same, the area and labour conditions being similar to those fixed and imposed in connection with other leases granted under this Act. Every agreement or lease of this kind must be registered within fourteen days.

A prospecting license may be issued to the holder of a miner's right empowering him to enter upon any private lands open to gold-mining, and not otherwise utilised under the Act, for the purpose of digging and searching for gold. Before mining operations are begun a deposit must be paid to cover any damage which may be caused to the surface of the ground. If payable alluvial gold is discovered the land may be resumed by the State, the discoverer having a preferent right to a prospecting claim. The Crown has also the power to resume land containing auriferous quartz veins, provided the consent of the owner be obtained; and the prospector who discovered the vein may apply for a lease.

At the close of the year 1896, the area of private lands held under lease was 6,160 acres, while other 6,616 acres were held under application to lease. On the same date, permits to mine for gold on 162 acres of reserved lands were in existence, while the area of reserved lands held under permits to mine for other minerals was 22,834 acres.

MINERS EMPLOYED AND PRODUCTION.

The following table gives the approximate number of persons actually engaged in the principal departments of mining during each of the past seven years. The figures are given on the authority of the returns to the Mines Department:—

Minerals.	Miners employed at end of each year.						
	1890.	1891.	1892.	1893.	1894.	1895.	1896.
Gold	12,589	11,166	9,049	11,957	17,207	21,434	22,207
Silver and silver-lead	5,806	7,645	5,889	4,709	4,208	4,658	5,555
Copper	716	481	500	283	645	868	810
Tin	2,172	1,951	1,657	2,024	1,542	1,399	1,419
Coal	10,469	10,820	10,514	10,028	9,131	9,022	9,233
Shale	189	260	396	385	297	354	227
Other minerals	868	185	237	736	486	564	487
Total	32,809	32,508	28,242	30,122	33,516	38,299	39,938

The value of mining machinery may be set down at £2,834,953. Of this, £1,126,855 represents the value of machinery and plant used in connection with coal and shale mines, £954,300 the machinery employed on the silver-fields, £693,198 that on the gold-fields, and £60,600 that on other mineral fields, principally copper and tin.

The summary given below shows the value of the production of the various minerals since their first discovery, as well as the value of minerals won in the year 1896:—

Minerals.	Value.	
	During 1896.	To end of 1896.
	£	£
Gold	1,073,360	43,399,958
Silver and silver-lead	1,785,451	22,410,046
Coal	1,125,281	31,819,331
Shale	34,202	1,795,213
Coke	21,851	184,449
Tin	68,546	6,196,518
Copper	197,814	4,068,169
Antimony	1,834	183,399
Bismuth	490	38,212
Lead (pig)	259	15,970
Oxide of iron	801	6,861
Sundry minerals	44,799	253,878
Total value £	4,354,688	110,372,004

It will be seen that the colony has produced various minerals of the total value of one hundred and ten millions sterling. In connection with this estimate of production, it may be explained that the figures relating to tin and copper differ from those appearing in the report of the Department of Mines. The ores of these metals are imported in large quantities to be smelted, and the refined copper and tin, the production of this smelting, are usually exported as domestic produce, and appear as such in the mining returns. This, of course, is an error. Also, from the heading "Sundry Minerals" some of the items, such as limestone flux and building stones, which have been included in the report of the Mines Department, have been rejected in preparing the above return.

METALLIC MINERALS—GOLD.

Amongst the metallic minerals found in the colony, gold occupies a foremost place, both on account of the quantity which has been and is now being raised, and of the influence which the discovery of the royal metal has had on the settlement of the country. The date of the discovery of gold in New South Wales was for a long time the theme of much controversy, and the question as to the original discoverer was long disputed. It is now agreed, however, that the existence of gold was known to the authorities during the early days when the colony was a convict settlement, but for obvious State reasons the matter remained secret. The first authentic record of the discovery is contained in an extract from Assistant Surveyor James McBrian's Field-book, bearing date 16th February, 1823, in which the following note appears:—"At 8 chains 50 links to river, and marked gum-tree—at this place I found numerous particles of gold in the sand and in the hills convenient to the river." The river referred to is the Fish River, at about 15 miles from Bathurst, not far from the spot to which the first gold-rush was made twenty-eight years afterwards.

In 1839, Count Strzelecki found gold in the Vale of Clwydd, and communicated the discovery to Governor Gipps; but he was requested to keep the matter secret, lest the knowledge of the existence of gold should imperil the safety and discipline of the settlement. The Rev. W. B. Clarke also found gold in 1841, in the Macquarie Valley and the Vale of Clwydd, and expressed his belief that the precious metal would be found abundantly dispersed throughout the territory. But it was not until the year 1851 that payable deposits were proved to exist in New South Wales, and this important discovery was due to Mr. E. Hammond Hargraves, who, on his return some time previously from California, pointed out to the Government the localities in which he had found payable deposits of alluvial gold, viz., at Lewis Ponds and Summer Hill Creek, in the districts of Bathurst and Wellington. Prospecting operations followed in the neighbourhood, with the result of which everyone is now familiar. A few weeks later, rich deposits were discovered at Ballarat, Mount Alexander, and other gold-fields in Victoria; and the world witnessed a gold-rush from all parts of the earth to these colonies, similar to that which some years before had taken place to California.

Native gold is the only true mineral species of gold which has so far been found in New South Wales, and was first met with in easily worked alluvial deposits. These diggings have always attracted the greater number of miners, as the precious metal is obtained without costly appliances; but however rich they may be, alluvial deposits are very soon worked out, their area generally being of limited extent. In such deposits gold is found associated with a variety of minerals. It is found in the shape of grains and nuggets, water-worn in appearance, and sometimes of considerable size. Though New South Wales has not yielded nuggets of such an extraordinary size as those found in the neighbouring colony of Victoria, yet some splendid specimens of that gold formation have been unearthed at various times. Thus in July, 1851, a mass of gold was found on the Turon River gold-fields which weighed 106 ℔., or 1,272 oz. This, however, though called a "nugget," was really a piece of reef gold. In November, 1858, at Burrandong, near Orange, another nugget was found, which when melted at the Sydney Mint gave 1,182 oz. 6 dwt. of pure gold, of the value of £4,389 8s. 10d. A third nugget, called the Brennan, was sold in Sydney in 1851 for £1,156. In 1880 and 1882, several nuggets which were unearthed at Temora weighed from 59 to 139 oz.; and in 1887 nuggets were found by fossickers in various parts of the country, four of which, weighing respectively 357 oz., 200 oz., 47 oz., and 32 oz., were obtained at Hargraves, and another, weighing 30 oz., at Limestone Creek. The Jubilee nugget, weighing 344 oz., was also discovered in that year at Maitland Bar, in the Mudgee District, and was worth about £1,236.

Although the alluvial deposits discovered in the early days have been practically abandoned and are considered to be worked out, there is ample evidence that the surface of the country has been merely scratched. The search for gold has been vigorously prosecuted for more than forty-five years and still new gold-fields and fresh deposits are being discovered—in localities, too, supposed to have been thoroughly examined. The gold formation is very widely diffused throughout the colony, as may be gathered from the fact that the fields of Albert, Delegate, and Ballina are between 600 and 700 miles distant from each other; and it has been estimated that the extent of country covered by formations in association with which gold always occurs, exceeds 70,000 square miles, whilst the precious metal has also been found in formations where its presence was never suspected. A considerable portion of this area, equal to nearly one-fourth of the whole surface of the colony, has never been touched by the pick of the miner.

Gold is also found in quartz-veins, occurring in older and metamorphic rocks, such as argillaceous slates, chloritic and talcose schists, as well as granite, diorite, serpentine, and porphyry. Vein gold is associated more commonly with iron pyrites, though found with copper, lead, zinc, and silver ores, and also in asbestos. But the extraction of gold from quartz-veins requires the erection of extensive machinery and gold-saving appliances, involving an outlay of capital such as the ordinary miner seldom possesses. Quartz-mining is generally carried on by companies.

Gold has been found in conglomerates in the Coal Measures at Tallawang, and in Carboniferous strata. The Rev. W. B. Clarke detected it in the Hawkesbury sandstone formation, on the north side of Sydney Harbour, and he also mentions that it is distributed through the sand at the mouth of the Richmond River. These auriferous beach sands have of late years given employment to several hundred men. Along the southern part of the coast of the colony, it has been found near the shore, in the sand washed by the waves of the Pacific Ocean; whilst at Bermagui, and in the district extending between Moruya and Eden, important discoveries have also been made. It would be impossible to name every part of the province in which gold is found, as the precious metal appears throughout the greater part of the territory, and there is ample evidence that there exist deposits which will offer to the prospector or the miner a profitable field of employment for many years to come.

Below will be found the quantity and value of the gold received for coinage at the Mint, and exported during each year, since 1851. The quantity of gold, the produce of New South Wales, received at the Sydney Mint for coinage in 1896, amounted to 203,337 oz., of the gross value of £759,853, the average price being nearly £3 14s. 9d. per oz. The gold exported during the year without passing through the Mint amounted to 92,735 oz., valued at £313,507.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	oz.	£		oz.	£
1851	144,120	468,336	1875	230,882	877,694
1852	818,751	2,660,946	1876	167,411	613,190
1853	548,052	1,781,172	1877	124,110	471,418
1854	237,910	773,209	1878	119,665	430,033
1855	171,367	654,594	1879	109,649	407,219
1856	184,600	689,174	1880	118,600	441,543
1857	175,949	674,477	1881	149,627	566,513
1858	286,798	1,104,175	1882	140,469	526,522
1859	329,363	1,259,127	1883	123,805	458,509
1860	384,053	1,465,373	1884	107,198	395,292
1861	465,685	1,806,171	1885	103,736	378,665
1862	640,622	2,467,780	1886	101,416	366,294
1863	466,111	1,796,170	1887	110,288	394,579
1864	340,267	1,304,926	1888	87,503	317,100
1865	320,316	1,231,243	1889	119,759	434,070
1866	290,014	1,116,404	1890	127,760	460,285
1867	271,886	1,053,578	1891	153,336	558,306
1868	255,662	994,665	1892	156,870	569,178
1869	251,491	974,149	1893	179,288	651,286
1870	240,858	931,016	1894	324,787	1,156,717
1871	323,609	1,250,485	1895	360,165	1,315,929
1872	425,129	1,643,582	1896	296,072	1,073,360
1873	361,784	1,395,175			
1874	270,823	1,040,329	Total	11,717,616	43,399,958

It will be seen that the production of gold in 1896, although not so high as in 1894 and 1895, exceeded that of any other year since 1873.

It is a well-known fact that in years of prosperity and easily-obtained employment persons are attracted from gold-mining to other pursuits which offer fewer chances of accumulaing rapid fortunes, but steadier employment and more security against loss, while the stoppage of this employment forces people to turn to mining. The depression in trade which has existed during the past few years has, therefore, had the effect of largely increasing the number of seekers after gold, many of the unemployed having been supplied by the Government with miners' rights and with railway passes to take them to likely spots where a living could be made by fossicking, on condition that the cost should be afterwards refunded when the men were in a position to pay the money. A large number of applications have been made by the relatives and mates of these men for assistance to join their friends, showing that at any rate many of those originally sent fossicking have found sufficient inducement to remain on the fields. The fees derived from the sale of miners' rights have, also, almost doubled since 1893, and it would appear that many men who in the first instance were granted rights on credit have been enabled to pay for them or for their renewal.

In other directions much enterprise has been shown during the last few years in the search for gold, and quartz reefs have been opened up in many parts with profitable results. Old workings, which had been abandoned years before, under an impression that they were valuable only on the surface, and which had scarcely, in any instance, been tested to a greater depth than 200 feet, have been reopened with very encouraging results, and quartz-mining is becoming more and more a permanent industry, the yield from that source being now almost four times as great as it was six years ago. On the other hand, the number of men engaged in alluvial mining and the returns therefrom showed no tendency to increase until the past three years, when a large number of fossickers gave a fillip to this branch of gold-mining. The following table shows the number of men employed in alluvial and in quartz-mining, with the production from each branch of the industry, since the year 1888. All the men employed in quartz-mining were Europeans, but on alluvial fields 710 Chinese found occupation in 1896:—

Year.	Number of Miners.		Production.	
	Alluvial.	Quartz.	Alluvial.	Quartz.
	No.	No.	oz.	oz.
1888	4,368	3,910	43,905	43,598
1889	5,623	4,569	39,412	80,347
1890	6,304	6,285	63,879	63,881
1891	4,748	6,418	50,713	102,623
1892	4,030	5,019	35,024	121,846
1893	6,401	5,556	55,336	123,952
1894	8,742	8,465	93,742	231,045
1895	11,331	10,103	81,645	278,520
1896	10,138	12,069	68,534	227,538

The principal seats of alluvial gold-mining are the Bathurst and Mudgee districts, and the country watered by the various feeders of the Upper Lachlan, and also in the Tumut and Adelong and Braidwood districts. In 1880, the Temora gold-fields, in the Murrumbidgee district, about 30 to 40 miles from the inland town of Wagga Wagga, were discovered, and were for some years in a flourishing condition. The district is now drifting from mining into an important agricultural settlement. In the north of the colony, in the New England district; on the coast, in the county of Gloucester; and in the extreme north-west, at Mount Poole, Mount Browne, and Tibooburra, the gold-fields maintain a considerable population of miners. The system of hydraulic sluicing is adopted in only two or three mines in the New England district; at Kiandra, on the southern table-lands, where extensive reservoirs have been formed, and the face of the rocks attacked in various places; at Nelbothery, near Bombala, where the Delegate River Hydraulic Sluicing Company have erected machinery capable of lifting 4,500,000 gallons of water to a height of 330 feet in twenty-four hours; in the Adelong Creek, near Adelong; and in the Shoalhaven valley, where large sums have been expended by companies in endeavouring to bring water to bear for sluicing several promising beds of alluvium.

The principal quartz-veins are situated near Adelong, Armidale, Bathurst, Hill End, Orange, Parkes, and Wyalong. The districts which produced the largest quantities of gold during 1896 were—Hillgrove, 37,901 oz. (Hillgrove, 24,420 oz., and Hillgrove West, 13,481 oz.); Wyalong and Wyalong West, 33,495 oz.; Orange (chiefly Lucknow), 29,446 oz.; Cobar, 25,750 oz.; Parkes, 12,500 oz.; Wellington (chiefly Mitchell's Creek), 7,130 oz.; Gulgong, 7,000 oz.; Captain's Flat, 6,560 oz.; Peak Hill, 6,428 oz.; Sofala, 4,753 oz.; Broken Hill, 4,389 oz.; Temora, 4,066 oz.; Hill End, 4,003 oz.; Major's Creek, 3,729 oz.; Young, 3,657 oz.; Ironbarks, 3,524 oz.; and Tumberumba, 3,021 oz. Besides the Mount Drysdale gold-field, in the Cobar district, discovered in 1893, the most important find of recent years was made at Wyalong, in the Lachlan district. The first prospecting claim on this field was registered on the 26th December, 1893; a great rush at once ensued, and in the early part of 1894 there were probably more than 10,000 persons on the ground. This number has now been reduced to reasonable proportions, and in 1896 the production from the field was only exceeded by that derived from the Hillgrove district, and showed an increase of 8,998 oz. on the yield of the previous year, and of 23,846 oz. on the yield of 1894. Another new field was discovered in 1894 at Garangula, near Murrumburrah. It may be pointed out that, as shown above, the Broken Hill Proprietary Company saved during the year 4,389 oz. gold from their silver-lead bullion.

The following table shows the average yield of gold obtained from certain parcels of quartz crushed in several of the mining districts during 1896 :—

District.	Quantity.	Average per ton.			Yield of Gold.		
	tons.	oz.	dwt.	gr.	oz.	dwt.	gr.
Bathurst	18,237	1	13	15	30,301	7	15
Tambaroora and Turon	4,232	0	13	6	2,892	13	3
Lachlan	36,787	1	6	6	48,286	4	20
Southern	17,025	0	6	9	5,446	3	17
Tumut and Adelong	6,160	0	8	12	2,626	12	14
Peel and Uralla	47,551	0	14	11	34,388	10	0
Hunter and Macleay	470	0	17	0	401	10	0
Clarence and Richmond	1,729	0	17	17	1,539	11	0
Mudgee	21,399	0	12	11	13,319	10	0
Cobar	3,129	0	9	17	1,541	11	0
New England	2,119	0	9	14	1,018	17	0
Total	158,838	0	17	20	141,762	10	21

The gold found in New South Wales is never absolutely pure, always containing traces of other metals, such as copper, iron, and bismuth, and often a fair percentage of silver. To the presence of silver its light yellow colour is due. New South Wales gold is generally lighter in colour than Victorian gold, but is of a deeper yellow than that found in the fields of Southern Queensland. Its specific gravity averages about 17·5.

The average weight of the metal obtained by each miner in 1896 was 13·33 oz, valued at £48 6s. 8d. It must not be supposed, however, that these men were employed during the whole year for so small a wage. Many of the miners follow other pursuits during a portion of the year; besides this, there were several new fields which so far had yielded very small returns, and a large number of men were engaged in prospecting. For the past ten years the average quantity of gold won per miner has been 14·72 oz., valued at £53 5s. 2d.

The steam engines employed in quartz-mining in 1896 numbered 262, with an aggregate of 4,107 horse-power. There were also 196 crushing-machines, and 1,462 stamp-heads. In alluvial gold and tin mining there were employed 32 steam engines, of which the aggregate horse-power equalled 409. The value of the machinery employed in gold-mining is estimated at £693,198.

The number of fatal accidents in gold-mines during 1896 was 22—ten more than in the previous year. Fourteen men lost their lives in auriferous quartz-mining, and eight in alluvial workings; while nine were seriously injured in quartz-mines, and two in alluvial mines; and twelve met with slight accidents in quartz-mines, and one in alluvial workings.

From the date of the first discovery of payable gold, in 1851, to the end of the year 1896, the quantity of gold produced in the Australasian colonies represents a total value of £388,533,999, extracted in the short space of forty-five years. The share of each colony in the production of this wealth is given below :—

Colony.	Value.	Proportion raised in each Colony.
	£	per cent.
New South Wales	43,399,958	11·17
Victoria	244,138,728	62·84
Queensland	39,196,465	10·09
South Australia	1,918,456	0·49
Western Australia	4,104,041	1·06
Tasmania	3,383,921	0·87
New Zealand	52,392,430	13·48
Australasia	388,533,999	100·00

By far the largest proportion of this amount was produced by the colony of Victoria—amounting in fact to nearly two-thirds of the whole. New Zealand is the next largest producer, New South Wales coming third. For the ten years ended 1896, the world's production of gold is estimated as follows :—

Year.	Value.	Year.	Value.
	£		£
1887	20,155,000	1892	29,260,000
1888	22,139,000	1893	31,110,000
1889	24,699,000	1894	38,035,000
1890	23,780,000	1895	41,562,000
1891	26,130,000	1896	45,305,000

Of the total value for 1896, the Australasian colonies produced about 19·8 per cent., and New South Wales alone, 2·4 per cent.

SILVER.

Up to the year 1882 the quantity of silver raised in New South Wales was very small, but in that and following years extensive discoveries of this metal, associated principally with lead and copper ore, were made in various parts of the colony, notably at Boorook, in the New England district, and, later on, at Sunny Corner, near Bathurst, and at Silverton, Broken Hill, and other places on the Barrier Range.

The argentiferous lead ores of the Barrier Ranges and Broken Hill districts of New South Wales have, more than any other, attracted attention. This rich silver-field, which was discovered in 1883 by Charles Rasp, a boundary rider on Mount Gipps Run, extends over 2,500 square miles of country, and has developed into one of the principal mining centres of the world. It is situated beyond the river Darling, and on the confines of the neighbouring colony of South Australia. In the Barrier Range district the lodes occur in Silurian metamorphic micaceous schists and banded gneisses, intruded by granite, porphyry, and diorite, and traversed by numerous quartz reefs, some of which are gold-bearing. The Broken Hill lode is the largest as yet discovered. It varies in width from 10 feet to 200 feet, and may be traced for several miles, the country having been taken up all along the line of the lode, and subdivided into numerous leases, held by mining companies and syndicates.

The Broken Hill Proprietary Company hold the premier position. They have erected on their lease a complete smelting plant on the latest and most approved principles, and have enlisted the services of competent managers, whose experience has been gained in the celebrated silver-mining centres of the United States. From the commencement of mining operations in 1885 to the end of May, 1897, the Company treated 3,299,331 tons of silver and silver-lead ores, producing 87,526,567 oz. of silver and 326,060 tons of lead, valued in the London market at £17,133,184. They have paid dividends and bonuses to the amount of £6,416,000, besides the nominal value of shares from the several "Blocks." The sum spent in the erection and construction of plant, from the opening of the property, is about £750,000. The mine wages and salary sheet for the twelve months was £407,315, including £79,056 paid to contractors and £55,760 for quarrying. The balance of £272,499 was made up of mine wages £77,169; smelters' wages, £105,340; lixiviation, chloridising, concentration, roasting, and refinery wages, £88,556; and electric light wages, £1,434. The net profit for the year was £300,120.

Besides the mines at Broken Hill, there are workings at Silverton and Thackaringa in the same district. The total value of minerals exported from the Barrier district during 1896 was £1,754,515, distributed as follows:—Silver-lead bullion, 19,421 tons, £788,530; silver-lead ore, 267,058 tons, £955,644; copper ore, 15 tons, £75; and copper matte, 247 tons, £10,266. The quantity of pure silver contained in the items enumerated amounted to about 10,395,000 oz.

As a natural consequence of the success of these mines, numbers of miners were attracted to the district, and the population, which in 1883 consisted of only a few station hands, had risen to a total of 24,438 souls at the date of the 1891 census, of whom 6,465 men were employed in and about the mines. The population of the district is now estimated, however, at about 20,000. The aggregate output of the mines, including the Proprietary, to the end of 1896, was valued at £21,189,665; and the value of the machinery in the Barrier district at the end of the year was £929,300. The proximity of Silverton and the Barrier district to the colony of South Australia could not fail to attract the attention of the business people at Adelaide, who were not slow to realise the advantages which they would obtain by attracting towards their capital the traffic of a region of such immense wealth. The railway system of South Australia was immediately extended to the border, and in the colony of New South Wales a tramway was laid down, thus connecting the town of Silverton and the mines of Broken Hill with the railway to Adelaide and Port Pirie, in the latter instance reducing the land carriage by some 70 to 80 miles.

A company has been formed in London for the purpose of acquiring the rights in New South Wales of a new process for the treatment of sulphide ores. Works have been constructed at Dapto, near Lake Illawarra, and it is intended to smelt refractory gold ores as well as silver ores. The machinery is capable of treating 200,000 tons yearly. Another company has erected at Cockle Creek, near Newcastle, electro-metallurgical works, which are giving employment to a large number of men. The process adopted at the Sulphide Corporation's works at Cockle Creek is that known as Ashcroft's, and is a most remarkable and interesting one. The capital of the company is £1,000,000; and the result of their operations will be watched with the very greatest interest, as it is considered that Mr. Ashcroft's discovery is one of the most remarkable of the century.

The quantity and value of silver and silver-lead ore exported from New South Wales to the end of 1896 is shown in the following table:—

Year.	Silver.		Silver Lead.			Total Value.
	Quantity.	Value.	Quantity.		Value.	
			Ore.	Metal.		
Up to	oz.	£	tons cwt.	tons cwt.	£	£
1881	726,779	178,405	191 13	....	5,025	183,430
1882	38,618	9,024	11 19	....	360	9,384
1883	77,066	16,488	105 17	....	1,625	18,113
1884	93,660	19,780	4,668 1	....	123,174	142,954
1885	794,174	159,187	2,095 16	190 8	107,626	266,813
1886	1,015,433	197,544	4,802 2	....	294,485	492,029
1887	177,308	32,458	12,530 3	....	541,952	574,410
1888	375,064	66,668	11,739 7	18,102 5	1,075,737	1,142,405
1889	416,895	72,001	46,965 9	34,579 17	1,899,197	1,971,198
1890	496,552	95,410	89,719 15	41,319 18	2,667,144	2,762,554
1891	729,590	134,850	92,383 11	55,396 3	3,484,739	3,619,589
1892	350,662	56,884	87,504 15	45,850 4	2,420,952	2,477,836
1893	531,972	78,131	155,859 1	58,401 3	2,953,589	3,031,720
1894	846,822	94,150	137,813 8	42,513 2	2,195,339	2,289,489
1895	550,142	81,858	190,192 19	29,687 7	1,560,813	1,642,671
1896	202,789	26,518	267,363 1	19,573 4	1,758,933	1,785,451
Total	7,423,526	1,319,356	1,103,946 17	345,613 11	21,090,690	22,410,046

As the bulk of the silver is exported in the form of silver-lead bullion and ore, it is impossible to ascertain the exact quantity of pure silver won until the product has been realised in London. A calculation based on figures given in the reports of the Broken Hill Proprietary Company warrants, however, the statement that the total value of £22,410,046, shown in the above table, was approximately made up of 115,964,200 oz. of pure silver, value £17,196,800, and of 435,800 tons of lead, value

£5,213,246. Owing to the steady fall in the price of silver, which had already set in before the opening up of the Broken Hill mines, and which, after a slight recovery in 1890, has since been accentuated by the closing of the Indian mints to the coinage of silver, the value of the output has not increased in the same ratio as its quantity. Even at the already low prices of 1890, the value of the 1896 output would have been worth £997,000 more than the figure at which it is set down. The consequences of the rapid fall during the last few years have been the closing of some of the smaller mines, the non-payment of dividends in others, and the reduction of dividends and working expenses, and consequently diminished employment, in the largest mines. In 1896, however, the price of silver was rather higher than in 1894 and 1895. The great fall in production during 1895 was principally due to the stoppage of work at the Proprietary mine for some time in consequence of the outbreak of fire in the underground workings.

An attempt has been made to calculate the cost of producing an ounce of silver at the Broken Hill Proprietary Company's Mine since 1888. The process adopted has been to ascertain the weight of silver to which the lead in the ore is equivalent at the current price of each metal, to add to this the weight of silver contained in the ore, and to place the cost of production against the nominal weight of silver so ascertained. Thus, during the three working years ended May, 1891, the average yield of silver per ton of ore treated was 37·56 oz. The value of the lead obtained from the ore was £2·23, equal to about 11·02 oz. of silver at 48·62d. per oz. This quantity, added to 37·56 oz. gives a nominal result of 48·58 oz. The average cost of production was £4·05 per ton of ore, which for 48·62 oz. is equivalent to 20·03d. per oz. The average prices of these metals since 1888 have been as follow :—

Period.	Price of Silver per oz.	Price of Lead per ton.
	d.	£
June, 1888, to May, 1891.........	48·62	13·90
June, 1891, to May, 1893.........	44·53	12·06
June, 1893, to May, 1896.........	33·13	11·85
Half-year ended November, 1896	33·00	10·89

Adopting the empirical method explained above, the following table shows the cost of producing silver at Broken Hill during the same periods :—

Period.	Cost of producing Silver per oz.
	d.
June, 1888, to May, 1891.........................	20·03
June, 1891, to May, 1893.........................	21·58
June, 1893, to May, 1896..	19·85
Half-year ended November, 1896	25·94

The cost of raising and treating the ore has fallen during the eight years from £4·05 to £2·50, while the cost of obtaining silver has increased from 20·03d. to 25·94d. per oz. The reason of this will be seen from the following table, which shows that the results per ton of ore have fallen from 37·56 oz. of silver and 3·21 cwt. of lead during the first three years to 21·98 oz. of silver and 1·51 cwt. of lead during the three years ended May, 1896, or to 19·34 oz. of silver and 0·97 cwt. of lead during the last half-year of 1896:—

Period.	Results per ton of Ore.		Cost of raising and treating 1 ton of ore.
	Silver.	Lead.	
	oz.	cwt.	£
June, 1888, to May, 1891...	37·56	3·21	4·05
June, 1891, to May, 1893...	30·13	2·39	3·41
June, 1893, to May, 1896...	21·98	1·51	2·35
Half-year ended Nov., 1896	19·34	0·97	2·50

The number of miners engaged in silver and silver-lead mines in 1896 was 5,555, and the average value of mineral won, per miner engaged, was £321 8s. 3d., as compared with £352 13s. 1d. in 1895.

The total number of accidents which took place in the silver-mines of New South Wales during the course of the year 1896 was 34, 9 persons losing their lives, 12 suffering severe injuries, and 13 meeting with slight injuries. These figures are much lower than in 1895, during which year, on account of an accident in the South Broken Hill mine, 9 lives were lost. In most years the casualties form but a very small proportion of the persons engaged in silver-mining, while the elements of danger are great, and this must be taken as reflecting considerable credit on the management of the mines.

The world's production of silver during the ten years ended 1896 has been estimated as follows:—

Year.	Ounces.	Year.	Ounces.
1887	96,124,000	1892	152,940,000
1888	108,827,000	1893	162,162,000
1889	120,214,000	1894	178,668,000
1890	126,095,000	1895	182,220,000
1891	137,171,000	1896	186,042,000

The annual output of New South Wales is about one-twelfth of the total production of silver.

TIN.

Lode tin occurs principally in the granite, and stream tin under the basaltic, country in the extreme north of the colony—at Tenterfield, Emmaville, Tingha, and in other districts of New England. The metal has also been discovered in the Barrier District, at Poolamacca and Euriowie; near Bombala, in the Monaro district; at Gundle, near Kempsey; at Jingellie, on the Upper Murray; at Dora Dora, on the Upper Murray; and in the valley of the Lachlan; but in none of these districts has it been worked to any extent. Although the first discovery was made by the Rev. W. B. Clarke as far back as 1853, the opening of tin-fields in the colony did not take place until the year 1872, from which date to the year 1882 the production, for which the net export is taken, increased rapidly, as may be seen from the following statement:—

Year.	Value.	Year.	Value.
	£		£
1872 to 1876	1,032,483	1888	309,510
1877	248,906	1889	207,670
1878	214,613	1890	179,057
1879	256,732	1891	133,963
1880	354,252	1892	152,994
1881	568,795	1893	126,114
1882	541,413	1894	85,264
1883	448,887	1895	87,937
1884	281,188	1896	68,546
1885	308,760		
1886	277,545		
1887	311,889	Total	6,196,518

It will be seen that tin has contributed in a very considerable degree to the general development of the natural wealth of the colony, and in point of value its aggregate production stands in the fourth place—next to gold, coal, and silver. For the years 1881 and 1882 the value of the production of tin was even in excess of that of gold; the export during 1894, 1895, and 1896, however, was the smallest since the opening of the tin-fields. Although tin-mining is now one of the settled industries of the country, and the supply is practically unlimited, the quantity raised depends almost entirely upon the price realised.

In 1881, when the industry was at its greatest height and prosperity, the export had increased to £568,795 from £249,779 in 1876. In 1882 the production was but £27,000 less; but after that year, owing to protracted dry seasons, which in many cases prevented mining operations, combined with the comparatively low price which the metal brought, the value of the output fell considerably. Another cause of diminished production is that the shallow deposits of stream-tin have to a great extent been exhausted, although the deep deposits and the tin-lodes have as yet scarcely been touched, nearly all the metal hitherto produced having been taken from alluvial deposits. The principal lodes worked during 1896 were the Vegetable Creek Tin-field, near Emmaville; at Tent Hill; at the Mann River, near Glen Innes; at Wilson's Downfall; and at Tingha. Within the twenty-five years that have elapsed since the opening of the tin-fields, the value of the exports has been £6,196,518.

In the alluvial tin-fields of Tingha and Emmaville, the number of Chinese engaged in this industry has in some years greatly exceeded the Europeans. In 1896, however, the Chinese at Emmaville numbered only 270, whilst the Europeans working alluvial tin-drifts and tin-lodes numbered 300. The total number of miners employed in tin-mining in the colony was 1,419, viz., 928 Europeans and 491 Chinese, nearly all of whom were employed in the Northern Districts. No accidents occurred in tin-mines during 1896.

COPPER.

The principal deposits of this mineral are found in the central part of the colony, between the Macquarie, Bogan, and Darling Rivers. Deposits have also been found in the New England and Southern districts, as well as at Broken Hill, showing that the mineral is widely distributed throughout the colony. The copper-mining industry, which at one time attained considerable dimensions, reached its highest point of production in 1883; but from that year there was a considerable falling-off in consequence of the decline in the price of the metal; indeed, the very low figure reached during the last few years deterred many from embarking in operations which showed every promise of success, and some of the mines which had been worked for many years were closed. The principal difficulty, common to other branches of the mining industry, lies in the great distance of some of the chief copper-mines from the port of shipment, and the consequently heavy cost of land carriage. There is now, however, a gratifying revival in the industry, and the prospects for the future seem to be of a favourable character. The copper-lodes of New South Wales contain ores of a very much higher percentage than those of many well-known mines worked at a profit in other parts of the world, and should return satisfactory results, notwithstanding the very large fall in price which has taken place since the failure of the copper syndicate in 1888.

The more important mines are those of Cobar, where the Great Cobar mine, which recommenced work early in 1894, raised in the following year 37,845 tons of ore, yielding 1,703 tons of smelted copper; and, in 1896, 66,431 tons of ore, yielding 2,650 tons of smelted copper, valued at £107,200. It may be mentioned that the copper extracted from this mine is found to contain gold more than sufficient to pay for mining and treating the ore. The syndicate to whom the mines belong now give employment to 450 men. The Nymagee Copper-mine, which has been acquired by the Great Cobar Syndicate, raised 3,249 tons of ore, yielding 380 tons of smelted copper, valued at £17,948. The Burraga Company produced 4,241 tons of refined copper in 1896, valued at £19,928; 150 men find constant employment at their mines. The production of the Mount Hope Copper Company was 1,092 tons of ore, yielding 141 tons of refined copper; while at South Mount Hope another company raised 454 tons of ore, the refined copper obtained amounting to 55 tons. In other districts considerable activity is also being displayed. It may be mentioned that the Broken Hill Proprietary Company saved copper to the value of £29,070 in the course of their operations during the year.

The net export of copper, which is taken as the production of the colony, is shown below from the year 1859:—

Year.	Value.	Year.	Value.
	£		£
1859 to 1876	408,071	1888	247,304
1877	127,396	1889	122,444
1878	209,030	1890	84,107
1879	210,623	1891	119,195
1880	268,700	1892	114,559
1881	257,884	1893	73,287
1882	182,473	1894	63,617
1883	472,982	1895	136,969
1884	362,287	1896	197,814
1885	170,993		
1886	122,990		
1887	115,444	Total......	4,068,169

It will be seen that the value of the export during 1894 was less than in any previous year given, a fact doubtless caused by the closing of many small mines owing to the unremunerative price of the metal. The industry, however, received a fillip during 1895, and in 1896 the production reached was the highest since the year 1888.

The total number of miners engaged in copper-mining in 1896 was 810. There was one fatal accident recorded in such mines during the year; one miner met with a serious accident, and five others suffered slight injuries.

IRON.

Iron is widely diffused throughout the colony, and occurs principally in the form of magnetite, brown hematite or goethite, limonite, and bog-iron. Deposits of chrome iron are also found. Magnetite is the richest of all the iron ores, sometimes containing a little over 72 per cent. of available metallic iron, though it is not often found reaching this very high percentage. These ores are widely distributed throughout New South Wales. The results of a number of analyses made from deposits at Brown's Creek, in the county of Bathurst, and at Wallerawang, where veins were opened out a few years ago, show that the samples of ore yielded from 40·89 to 56·85 per cent. of metallic iron. At Wallerawang, a variety of garnet, containing a large percentage of metal, occurs in conjunction with the ore in the veins, which is described as "extremely well adapted for reduction in the blast furnace." Brown hematite or goethite occurs in very extensive deposits in the Blue Mountain Ranges, the principal centres so far explored being situated at Mittagong, Picton, Berrima, Lithgow Valley, Wallerawang, in the Rylstone and Mudgee Districts, and in the vicinity of Port Stephens. The result of a number of analyses of this kind of ore denotes that it is very rich in metallic iron, containing a proportion of 42·69 to 64·48 per cent., and in the majority of cases over 55 per cent. of metal. A sample of hematite from the Maitland district contained 60·83 per cent. of metallic iron. A sample of brown hematite from Mount Pleasant, near Wollongong, analysed during 1891, gave 54·28 per cent. of iron. The value of these deposits is enhanced by their almost invariable occurrence in proximity to limestone and coal-beds. It is fortunate, also, that the main lines of railway pass through the regions where the deposits are most easily worked.

Limonite—a variety of brown hematite—principally occurs at Lithgow, Eskbank, and Bowenfels, in the Blue Mountains; in several parts of the Hunter River coal-field; and at Bulli, in the Illawarra District. This ore is usually found very rich in metal, and contains an average of over 50 per cent. of iron; while the English clay bands, which are mostly carbonates, only contain about 30 per cent. of metallic substance. It occurs in lenticular layers of no great extent, in the Coal Measures. Bog-iron-ore, which is impure limonite, is principally found at Mittagong; and assays of this ore gave an average percentage of metal of more than 45 per cent.

None of the other southern provinces possesses deposits of iron-ore approaching in extent or richness those of New South Wales. It is therefore probable that at some future time this colony will become the great seat of the iron industry of Australia. As illustrating the present extent of the supply required, the following table, showing the value of all descriptions of iron, machinery, and iron manufactures imported into the various colonies during the five years, 1892–96, has been compiled:—

Colony.	1892.	1893.	1894.	1895.	1896.	Average Yearly Import, 1892–96.
	£	£	£	£	£	£
New South Wales	2,574,122	1,531,839	1,189,249	1,219,096	1,957,143	1,694,290
Victoria	1,038,425	715,271	699,696	665,148	1,194,976	862,703
Queensland	521,701	363,624	496,029	691,215	848,871	584,288
South Australia	561,315	405,214	349,945	349,826	536,632	440,586
Western Australia	221,652	354,759	355,890	587,063	1,052,135	514,300
Tasmania	208,924	153,771	104,969	117,946	155,813	148,285
New Zealand	1,000,915	920,626	836,589	781,602	1,095,206	926,988
Australasia	6,127,054	4,445,104	4,032,367	4,411,896	6,840,776	5,171,440

The average yearly import for the five years covered by the above statement amounts to £1,694,290 for New South Wales, and £5,171,440 for Australasia; and the quantity of pig-iron required to produce the material represented by these values is approximately 122,500 tons and 373,900 tons per annum for New South Wales and the whole group of colonies respectively. In a report, dated January, 1891, by the late Mr. C. S. Wilkinson, Government Geologist, it is stated that the iron deposits in the districts of Mittagong, Wallerawang, and Rylstone contained in sight 12,944,000 tons of ore, estimated to yield 5,853,000 tons of metallic iron. These districts are most favourably situated for the establishment of smelting works. Some years ago public attention in England was drawn to the possibility of manufacturing iron within the colony, and a mining expert was sent out from that country to inspect the iron, lime, and coal deposits, and to report upon the probable cost of establishing the industry in the colony, but so far the visit has been without result.

The principal works for the manufacture of iron from the ore are situated at Eskbank, near Lithgow, where red siliceous ore, averaging 22 per cent., and brown hematite, yielding 50 per cent. metallic iron, have been successfully treated. Abundance of coal and limestone are found in the neighbourhood. This establishment, however, has for some time abandoned the manufacture of pig-iron, for which it was originally built. The work now carried on consists of the re-rolling of old rails, and the manufacture of iron bars, rods, and nails, and of ordinary castings. The quantity manufactured from scrap during 1896 was 4,721 tons, valued at £33,283. A successful attempt has been made at Mittagong to make gas-pipes, etc., from iron smelted from the ore, and taken direct to the mould, without first making it into pig-iron. Some years ago the iron smelting works at Fitzroy, Mittagong, were established, but after producing a considerable quantity of pig-iron the operations were discontinued. Some samples of ore, coal, and limestone obtained in this district, with pig-iron and castings manufactured therefrom, were exhibited at the late Mining Exhibition in London, and obtained a first award. Iron ore is raised in some places in the colony, but is used chiefly for the purpose of flux.

During the year 1893, Parliament agreed to a resolution for the manufacture of 30,000 tons of iron piping in the colony, and portions of the work have since been let by tender as opportunity offered. A further order for £75,000 worth of iron pipes was placed by the Government with local firms, in November, 1897. In 1896 tenders were called by the Government for the supply of 150,000 tons of steel rails, with the necessary quantities of fish-plates, fish-bolts, and spikes, to be manufactured in New South Wales, from iron ore and other necessary minerals produced in the colony. The tenders closed on the 30th December of that year. The specification provided for the delivery of 15,000 tons per annum, in equal monthly quantities, the first delivery to take place not later than eighteen months after the signing of the contract. One of the offers received was accepted.

ANTIMONY.

Deposits of antimony occur in the colony in various places, chiefly in the Armidale, Bathurst, and Rylstone districts; and at Bowraville on the North Coast. The principal centre of this industry is at Hillgrove, near Armidale, where the Eleanora Mine, one of the richest in the colony, is situated. The ore is also worked for gold. The results of a number of analyses, made by the authorities of the Geological Museum, show from 29·57 to 79·45 per cent. of metal; but, notwithstanding these encouraging assays, the price has not been sufficiently high to tempt Australian producers. A considerable quantity of antimony was raised some years ago at the Corangula mines, in the Macleay district, but these mines are at present idle. Lodes have also been opened and partly worked near Nambucca, Drake, Gulgong, and Razorback. The value of antimony raised during 1896 was £1,834, and up to the end of that year, £183,399. With the exception of 30 tons, valued at £200, raised at Bowraville, the production in 1896 was obtained at Hillgrove. The industry has suffered greatly during the last two years from the low price of the metal, and the output is not likely to improve until the price takes an upward tendency.

MANGANESE.

Deposits of manganese ore have been discovered in various parts of New South Wales. Pyrolusite, in the form of black oxide and manganese dioxide, occurs principally in the Bathurst districts and at Bendemeer. Wide veins have also been found in the Glen Innes district, near the Newton-Boyd road. Some of the specimens analysed have yielded a very high percentage of metal; but the demand for manganese in the colony is very trifling, and until a foreign market is found, or local manufactories requiring the metal spring up, the rich deposits of this ore will remain comparatively untouched. The ore is found extensively in conjunction with iron in coal and lime-stone country, and often contains a small percentage of cobalt.

BISMUTH.

Bismuth is found associated with molybdenum and gold, in quartz-veins, in the neighbourhood of Glen Innes, whence the quantity raised has been chiefly obtained. The principal mines are situated at Kingsgate, where the mineral occurs in a granitic formation, associated with molybdenum, mispickel, and tin; but at the present time they are practically closed, there being little demand for the mineral in London, and only 41 tons were forwarded there in 1896. It is stated that in the Nymagee district promising indications of payable deposits have been found. The largest mass of native bismuth yet discovered in the colony weighed more than 30 lb. The value of this metal exported up to the end of 1896 was £38,212.

PLATINUM.

Platinum and the allied compound metal Iridosmine have been found in New South Wales, but so far in inconsiderable quantities, the latter occurring commonly with gold or tin in alluvial drifts. It is believed that the beach deposits at Ballina and other places on the northern coast might, with improved appliances, be profitably worked for platinum. Fifteen cwt. of sand from this district were forwarded in 1891 to platinum merchants in London for treatment. The tests made proved, however, that the small percentage of metal found and the cost of extraction barely leave a margin of profit. On the northern beaches, a little platinum is being obtained by the miners who are working the black sand for gold. The metal has also been discovered at Fifield, in the Parkes district, and in lodes near Broken Hill and Orange. At Fifield, 2,900 oz. were saved in the course of the gold-washing operations during the year 1896. The Fifield platinum occurs in coarse shotty grains, and is much purer than that obtained from the northern beach-sands. The quantity of platinum exported during 1896 was 2,438 oz., valued at £3,479.

OTHER METALS.

Mercury, in the form of cinnabar, has been discovered on the Cudgegong River, near Rylstone, and it also occurs at Bingara, Solferino, Yulgilbar and Cooma. In the latter place the assays of ore yielded 22 per cent. of mercury. Very large and rich deposits have been found on Noggriga Creek, near Yulgilbar, and three 40-acre blocks have been taken up. Cinnabar leases have also been applied for in the Bingara district.

Deposits of cobalt have been found at Bungonia, Carcoar, and Port Macquarie; but the market for the metal is small, and no attempt has yet been made to produce it on any large scale.

Chromium is found in the northern portion of New South Wales, in the Clarence and Tamworth districts, and also near Gundagai. It is usually associated with serpentine. In the Gundagai district the industry was rapidly becoming a valuable one, but the low price of chrome has greatly restricted the output. During 1896 the production reached 1,000 tons, valued at £3,000. The exports of chrome ore during the year amounted to £11,280.

Tellurium has been discovered at Bingara and other parts of the northern districts, as well as at Tarana, on the Western Line, though at present only in such minute quantities as would not repay the cost of working. It has also been found at Captain's Flat, in association with bismuth.

At Berridale, in the Snowy River district, a lode has been tested for wolfram. The metal, which is a compound of tungstate of iron and manganese, has also been found in the New England district.

Zinc is found usually associated with silver, lead, and copper, but the metal has not yet been profitably worked.

Deposits of pigments are found near Mudgee and Dubbo, and also in the Orange district, where a fair quantity of the raw material, consisting principally of purple oxide and yellow ochre, has been produced.

NON-METALLIC MINERALS—COAL.

The carboniferous formations extend over a considerable portion of the colony, and workable coal-seams have been discovered in many places. At present, however, the coal-mining industry is confined to those centres which, from their close proximity to ports of shipment or the railway lines, afford ready means for the disposal of the commodity when raised.

Coal was first discovered in the colony in the year 1797 near Mount Keira, in the Illawarra district, by a man named Clark, supercargo of the Sydney Cove, while he was endeavouring to reach Sydney by way of the coast after the wreck of that vessel in Bass' Strait. Later in the same year Lieutenant Shortland discovered the River Hunter, with the coal-beds situated near its mouth, and mining operations in this district, begun in 1826, have reached large dimensions.

The deposits which have been found in the Blue Mountains, near the line of railway which runs along their crest, at Katoomba, Lithgow, Wallerawang, and elsewhere, now supply a portion of the requirements of Sydney and other industrial centres in its neighbourhood, as well as part of the western district of the colony. Coal is also mined at Berrima and other places in that district, whence a large quantity of the coal consumed in the southern districts of the colony is obtained. The area over which coal is distributed is very great, and has been computed at 23,950 square miles; besides this, it is known to underlie the Hawkesbury sandstone in and around Sydney. The diamond-drill was used at Cremorne Point, near Mossman's Bay, for the purpose of ascertaining whether coal existed beneath the metropolis. A depth of 3,095 ft. was reached, the deepest bore yet put down in Australia. Coal was met with, but the work was discontinued, as there was every reason to believe, from the position of two doleritic dykes met with, that a volcanic disturbance, such as is often found in the Southern coal-fields, had occurred at that particular spot. It was considered to have been proved that the Illawarra coal measures extended under Sydney, and it was resolved to put down another bore about half a mile distant from the previous one, and midway between the two dykes. The new bore-hole was the largest ever attempted in Australia, the boring-bit being 5½ in. in diameter, and capable of bringing up a 4⅛-in. core. A commencement was made with this work at the end of 1891, and, after carrying the bore down to a depth of 2,929 ft., a very valuable discovery of good steam coal was made. The seam is 10 ft. 3 in. in thickness 9 ft. 2 in. of it being workable. A company to work the mine has been floated in London with a nominal capital of £300,000, and sinking operations have been begun at Balmain. A coal seam 6ft. 6½ in. thick has been found on the Moorbank Estate, near Liverpool, at a depth of 2,583 ft. Coal has also been found in the Clarence series, though it has not yet been worked commercially. Three seams have been proved at Coraki, on the Richmond River. Several parties have exploited this district for coal, and at the mine at Aberdare 150 tons of good coal have been obtained from a seam 6 ft. thick. The quantity of coal in the coal measures down to a depth of 4,000 ft., and excluding seams less than 30 in., is estimated by the Government Geologist at 78,198 million tons. This estimate allows for one-third loss in working.

In 1826, the Australian Agricultural Society obtained a grant of 1,000,000 acres of land, together with the sole right, conferred by charter, of working the coal-seams which were known to exist in the Newcastle district. Several mines were opened up, and profitably worked for a number of years; but it was not until the expiration, in 1847, of the monopoly enjoyed by the company that the coal-mining industry showed signs of extensive development. During the year named the output of coal only reached the total of 40,732 tons, of the value of £13,750. Six years afterwards the production had been doubled, and the output of this mineral has rapidly increased year by year until coal-mining is now one of the staple industries of the colony. Newcastle is singularly well fitted by situation to become the port of supply for all the countries of the southern seas. Every week coal-laden vessels leave its wharfs, not only for the Australian colonies, but for China, India, the Pacific Slope of North and South America, Mauritius, the Cape of Good Hope, and other lands. Every provision has been made by the Government for shipping coal, and over two miles of wharfs, furnished with cranes and shoots capable of loading over 28,000 tons per day, line its shores. The markets of the colonies are also supplied with quantities of excellent coal from the seams worked in the Illawarra district.

From the 40,732 tons extracted in 1847, the quantity raised had in 1891 expanded to the large figure of 4,037,929 tons, valued at £1,742,796. This is the largest output ever reached in a single year. In 1892 the production fell to 3,780,968 tons, valued at £1,462,388; while in 1893 there was a further fall to 3,278,328 tons, valued at £1,171,722; but in 1894 the production again took an upward tendency, and in 1895 stood at 3,738,589 tons, of a value of £1,095,327; and in 1896, 3,909,517 tons, valued at £1,125,281. Although the quantity extracted in 1896 has only been exceeded in 1891, the fall in prices has placed the value below that of every year since 1882, with the exception of 1895. To the end of 1896, the total quantity of coal extracted from the New South Wales mines, from their opening in the early years of the century, amounted to 72,282,266 tons, valued at £31,819,331.

The number of coal-mines under inspection in New South Wales at the end of the year 1896 was 96, being a decrease of 3 from the figures of 1895. They gave employment to 9,233 persons, of whom 7,538 were employed under ground, and 1,695 above ground. The average quantity of coal extracted per miner was 519 tons, as against an average of 503 tons for the previous year, and 492 tons for 1894. The low average for 1890, only 368, is accounted for by the strike that occurred during that year; but a tendency to decline had been exhibited since 1882, when the average per miner was 578 tons. In 1896, owing to the comparatively small number of miners employed, and the increased output as compared with most of the preceding years, the average was the highest since 1885, when it was 511 tons.

Below will be found the quantity of coal raised in the colony, and the number of coal-miners employed, during each of the last ten years. Calculated on the total value of the coal produced during the decade, the average quantity of 447 tons extracted yearly by each person employed underground represents a value of £170 19s. 6d., and for the total number of persons employed, £149 5s. 7d. In 1896 the average value of production was £139 4s. 6d. for each person employed underground, and £121 17s. 6d. for each person employed in any capacity about the mines :—

Year.	Persons employed in and about mines.	Persons employed under-ground.	Quality of Coal raised.		
			Total.	Per person employed in and about mines.	Per person employed under-ground.
	No.	No.	tons.	tons.	tons.
1887	7,998	6,539	2,922,497	365	447
1888	9,301	7,622	3,203,444	344	420
1889	10,277	8,349	3,655,632	356	438
1890	10,469	8,311	3,060,876	292	368
1891	10,820	8,718	4,037,929	373	463
1892	10,514	8,624	3,780,968	360	438
1893	10,028	8,267	3,278,328	327	396
1894	9,131	7,461	3,672,076	402	492
1895	9,022	7,438	3,738,589	414	503
1896	9,233	7,538	3,909,517	423	519
Average for 10 years	9,679	7,887	3,525,986	364	447

It is believed that the industry is still suffering to some extent from the effects of the strikes in 1887 and 1890, which not only caused a temporary suspension of trade, and deprived the colony of the benefit of hewing and handling some 600,000 tons of coal, but induced buyers to seek other markets for the supply of their requirements. Among other things, this promoted the development of the coal-mines in Japan, where, owing to the cheapness of labour, coal can be produced, though possibly of inferior quality, at a price which makes it a formidable competitor to Australian coal. Still, as before explained, the output in 1891 was the largest on record, and the export for the year, 2,514,368 tons, exceeded that of the previous year by 692,494 tons, and even that of 1889 by 126,666 tons. In 1892, the total export amounted to 2,191,705 tons; in 1893, to 1,835,090 tons; in 1894, to 2,125,125 tons; in 1895, to 2,166,230 tons; and, in 1896, to 2,474,907 tons. A comparison of the figures for 1896 with those for previous years shows that the export was the largest on record to foreign ports, but that there was a greater export to intercolonial ports in 1891. In home consumption there was a decrease of 137,749 tons from the figures of 1895.

Northern District.—In the Northern or Hunter River District the number of collieries under official inspection in 1896 was 67, employing a complement of 6,941 persons, 5,697 of whom were miners, wheelers, etc., employed underground. The quantity of coal raised amounted to 2,623,016 tons, or fully 67 per cent. of the whole production of New South Wales. This, however, was a decrease of 8,206 tons from the figures for the previous year, and 230,236 tons less than the output of 1891, the highest on record.

The following table shows the growth of the coal industry within the last ten years in the Hunter District. The quantity of mineral raised and the number of persons employed steadily increased up to the year 1888, when the production was interfered with by strikes; both the number of men employed and the quantity of coal raised have fluctuated since. The output in 1891 was higher than in any previous year, while in 1895 it was the second highest on record:—

Year.	Persons employed in and about mines.	Persons employed underground.	Quantity of Coal raised.		
			Total.	Per person employed in and about mines.	Per person employed underground.
	No.	No.	tons.	tons.	tons.
1887	6,287	5,217	2,243,792	356	430
1888	6,873	5,736	2,067,042	300	360
1889	7,559	6,216	2,624,347	347	422
1890	7,874	6,345	2,120,046	269	334
1891	8,309	6,732	2,853,252	343	424
1892	8,204	6,783	2,611,732	318	385
1893	7,872	6,503	2,203,480	280	339
1894	7,077	5,773	2,605,143	368	451
1895	6,777	5,605	2,631,222	388	469
1896	6,941	5,697	2,623,016	378	460

Southern District.—In the Southern District there were in 1896 thirteen collieries under official inspection, giving employment to 1,894 persons, of whom 1,506 were at work underground. These numbers exhibit a decrease of 55 persons employed in and about the mines, and of 80 underground workers, as compared with those so engaged in 1895.

There was, however, an increase of 91,874 tons in the production, the total quantity raised during the year being 1,008,377 tons—the largest output known in one year in the district. The next highest figures are those for 1892, when 932,873 tons were raised. An impetus was given to the trade of these collieries through the strike at the Newcastle mines, which caused a large demand for the southern coal.

The history of coal production in this region for the last ten years may be gathered from the following table:—

Year.	Persons employed in and about mines.	Persons employed under-ground.	Quantity of Coal raised.		
			Total.	Per person employed in and about mines.	Per person employed under-ground.
	No.	No.	tons.	tons.	tons.
1887	1,313	982	376,658	287	383
1888	1,676	1,244	796,806	475	640
1889	2,065	1,598	701,572	339	439
1890	1,959	1,434	597,598	305	417
1891	2,007	1,550	837,873	417	541
1892	1,860	1,469	932,873	502	635
1893	1,851	1,503	884,470	478	588
1894	1,755	1,443	867,064	494	601
1895	1,949	1,586	916,503	470	578
1896	1,894	1,506	1,008,377	532	670

Western District.—In the Western District in 1896 there were 16 collieries under official inspection, giving employment to 398 persons, of whom 335 were at work underground. From the subsequent table, it will be seen that the output in 1891 was in excess of that of any other year during the decade, not even excepting 1888, when the demand for Western coal was larger than usual, owing to the scarcity caused by the strike in the Northern Collieries. The figures for 1896 show an increase of 87,260 tons compared with those for the previous year, and are the highest since 1891. The average quantity of coal raised per miner is much greater in the Western collieries than elsewhere in the colony. This is due to a variety of causes, but chiefly to the greater thickness of the seams and the more friable character of the coal, and to the circumstance that the coal-beds are almost horizontal, and generally at small depths; in some cases the coal is worked by means of adits or tunnels instead of shafts, so that the facility for winning coal is much greater in these mines than in those at Newcastle. But though the output is greater per miner than in the other coal regions, the price for hewing is lower, so that the earnings of the individual miner do not differ greatly wherever the mine is situated.

The following table shows the growth of coal production in the Western region during the last ten years. Until 1891 the progress was regular, and in keeping with the advance of settlement in the portion of the colony extending from the Blue Mountains to the Darling, in which the Western collieries have a monopoly of the coal trade; but from 1891 to 1895 the output decreased, a considerable improvement, however, being manifested in 1896. Situated, as these mines are, in close proximity to the principal iron-fields of New South Wales, their future prospects will be greatly improved should the manufacture of iron from the ore become an established industry in this part of the colony:—

Year.	Persons employed in and about mines.	Persons employed underground.	Quantity of Coal raised.		
			Total.	Per person employed in and about mines.	Per person employed underground.
	No.	No.	tons.	tons.	tons.
1887	398	340	302,137	759	888
1888	752	642	339,594	451	529
1889	653	535	329,713	505	616
1890	636	532	343,232	540	645
1891	504	436	346,804	688	795
1892	450	372	236,363	525	635
1893	305	261	190,378	624	729
1894	299	245	199,869	668	816
1895	296	247	190,864	645	773
1896	398	335	278,124	699	830

There were 24 persons killed and 62 injured in the New South Wales coal-mines during 1896, making a total of 86 persons affected by accidents—the number of cases terminating fatally being greater than in any year since 1889, in consequence of an outburst of carbon monoxide gas in the Stockton Colliery, by which eleven persons lost their lives. The non-fatal cases were more numerous than in any year since 1892, when the number was 77. For the decennial period ending with 1895—the latest date available—the average annual loss of life in the British coal-mines was 1·7 per thousand, or at the rate of 180,217 tons of coal raised for every fatal accident. In the New South Wales collieries, for the same period, the rate was 2·6 fatal accidents per thousand miners employed, and only 136,177 tons of coal were raised for every life lost. This very high average of fatal accidents in the colony results from the Bulli disaster in 1887, when 81 miners lost their lives. The circumstances surrounding the mining industry in New South Wales would warrant the expectation of a much lighter average.

The number of accidents in the coal-mines of the colony, with the roportion of miners to each fatal and non-fatal case, is given herewith, s well as the quantity of coal raised to each life lost :—

Year.	Accidents.		Number of miners employed to each person.		Number of tons of coal raised to each person.	
	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.
1887	45	94	178	85	64,944	31,092
1888	43	15	216	620	74,500	213,565
1889	57	41	180	251	64,134	89,163
1890	36	13	291	805	85,024	235,452
1891	54	21	200	515	74,776	192,282
1892	77	8	136	1,318	49,103	472,622
1893	45	13	222	771	72,851	252,171
1894	40	7	228	1,304	91,802	524,589
1895	47	10	192	902	79,544	373,859
1896	62	24	149	385	63,057	162,897

The following table shows the quantity and value of coal raised in the colony from the earliest record to the close of 1896, the total production being 72,282,266 tons, valued at £31,819,331 :—

Period.	Quantity.	Average per ton.	Value.
	tons.	s. d.	£
Prior to 1830	50,780	10 0	25,393
1830 to 1839	111,069	8 9	50,525
1840 ,, 1849	349,961	9 2	155,083
1850 ,, 1859	1,481,761	12 11	1,004,924
1860 ,, 1869	6,174,132	10 2	2,961,910
1870 ,, 1879	12,530,044	10 7	6,838,888
1880	1,466,180	8 5	615,336
1881	1,769,597	6 10	603,248
1882	2,109,282	9 0	948,965
1883	2,521,457	9 6	1,201,942
1884	2,749,109	9 6	1,303,077
1885	2,878,863	9 4	1,340,213
1886	2,830,175	9 2	1,303,164
1887	2,922,497	9 3	1,346,440
1888	3,203,444	9 1	1,455,198
1889	3,655,632	8 11	1,632,849
1890	3,060,876	8 4	1,279,089
1891	4,037,929	8 8	1,742,796
1892	3,780,968	7 9	1,462,388
1893	3,278,328	7 2	1,171,722
1894	3,672,076	6 4	1,155,573
1895	3,738,589	5 10	1,095,327
1896	3,909,517	5 9	1,125,281
Total	72,282,266	8 10	31,819,331

This table shows that coal, like other articles of commerce, is subject to fluctuations in price. These fluctuations have to a large extent arisen in the past from uncertainty in the markets. This uncertainty no longer exists, for the local markets and those of the other Australian colonies demand a large share of the coal raised. The proportion of the production taken by Australasia increases almost every year, and operates in the direction of steadying the price, by removing the principal cause of fluctuation. The highest average price obtained during any year was in 1854, the first of the Crimean war, and the third after the commencement of the gold rush, when the price per ton was not less than 20s. 6d. In 1872 the output reached 1,000,000 tons; ten years later it had increased to 2,000,000; and in 1891, to a little over 4,000,000 tons; while for the last four years it fluctuated between three and a quarter and four million tons.

The colony was its own chief customer during 1896, when, out of the total production stated above, the local consumption amounted to 1,434,610 tons, or 36·7 per cent. Victoria was its principal customer abroad, taking 714,666 tons, or nearly 29 per cent. of a total export of 2,474,907 tons. The quantity of coal required for local consumption denotes a satisfactory increase during most years, as the following statement shows:—

Year.	Tons.	Year.	Tons.
1887	1,132,055	1892	1,589,263
1888	1,279,572	1893	1,443,238
1889	1,267,930	1894	1,546,951
1890	1,239,002	1895	1,572,359
1891	1,523,561	1896	1,434,610

The annual consumption per head increased from 16 cwt. in 1877 to 22 cwt. in 1896. The larger use of steam for railway locomotives, and for manufacturing and other purposes, as well as the multiplication of gasworks, accounts for a great portion of the increase; but it must also be borne in mind that there is a large and growing demand for bunker coal for ocean-going steamers, which appears not as an export, but as required for home consumption. The amount of coal taken by the steamers during 1896 was about 350,000 tons.

The quantity of coal supplied to the customers of the colony abroad shows also a large increase during this period:—

Year.	Tons.	Year.	Tons.
1887	1,790,442	1892	2,191,705
1888	1,923,872	1893	1,835,090
1889	2,387,702	1894	2,125,125
1890	1,821,874	1895	2,166,230
1891	2,514,368	1896	2,474,907

As the coal trade of 1890 was hampered by the strike of that year the exports of 1891 necessarily showed a large advance on those of 1890; still, even if compared with the year 1889, the trade of 1891 exhibited satisfactory progress, while in 1892 the exports fell not only below those of 1891, but even below those of 1889. A further large decrease in the exports took place in 1893, but the figures for 1894 and 1895 showed a slight recovery, and in 1896 the improvement was very decided, the export being only 39,461 tons less than in 1891.

The customers of New South Wales for coal during the year 1896 will be found in the following table, from which it will be seen how wide is the circle which relies upon the colony for the supply of one of the chief necessaries of civilised life :—

Country or Port.	Tons.	Country or Port.	Tons.
Victoria	714,666	Mexico	15,160
Chili	310,580	Ceylon	11,440
United States	303,726	China	8,890
South Australia	290,318	Mauritius	8,466
Western Australia	156,969	United Kingdom	7,224
New Zealand	131,045	South Sea Islands	6,123
India	76,908	Celebes	2,576
Philippine Islands	66,582	New Guinea	1,960
Tasmania	57,074	Tahiti	1,744
Hawaiian Islands	55,224	Cochin China	1,606
Peru	42,901	Ecuador	1,242
Straits Settlements	42,804	Cape Colony	684
Hong Kong	40,817	New Britain	602
Java	37,387	Japan	460
Queensland	27,724	Marshall Islands	353
Panama	21,903	Caroline Islands	252
New Caledonia	19,309	Timor	60
Fiji	16,128		
		Total	2.474.907

The wealth of the colony in coal is enormous, and the further expansion of the industry may be regarded as almost a certainty. As the great Australian Continent is only in the early period of the development of its immense resources, so also may the coal-mining industry of New South Wales be said to be in its infancy. It is, however, a very vigorous infancy, giving promise of a great future.

New South Wales coal, especially that obtained in the northern mines, compares favourably as a heat producer with the best foreign coal. It has the advantage of a greater specific gravity, and it contains less sulphur. The result of analyses made of coals from various localities in the colony showed that the mean specific gravity of the Northern District coals was 1·300; of the Western coals, 1·346; and of the Southern coals, 1·394; while the mean of a number of samples of British coal was 1·279. Carbon was present to the extent of 79·28 per cent. in the Northern, 70·75 per cent. in the Western, and 79·40 per cent. in the Southern coal, the proportion in the British coal being 80·40 per cent. The proportion of hydrogen, oxygen, and nitrogen is very much the same in the Australian as in the British coal, but the latter has a slightly smaller percentage of ash. The steam-producing power of the coal from the Northern districts of the colony is almost equal to, and that from the South and West a little below, the generating power of the coal raised in Great Britain.

COKE.

The quantities of coke manufactured in New South Wales during the last seven years were as follow :—

1890	31,097 tons,	valued at £41,147
1891	30,310 ,,	,, £34,473
1892	7,899 ,,	,, £8,853
1893	17,858 ,,	,, £20,233
1894	34,458 ,,	,, £33,209
1895	27,630 ,,	,, £24,683
1896	26,351 ,,	,, £21,851

During the same period the imports into the colony were :—

1890	38,174 tons
1891	76,542 ,,
1892	61,852 ,,
1893	61,874 ,,
1894	47,586 ,,
1895	42,526 ,,
1896	43,134 ,,

Almost the whole of this was imported *via* South Australia to the Barrier district, where it was used for smelting purposes. The returns of the South Australian Customs Department show that by far the largest quantities of this coke came originally from the United Kingdom and from Germany. At Broken Hill, the Proprietary Company alone have consumed about 1,000 tons per week. It seems a singular circumstance that the silver-miners of New South Wales should so largely rely on England and Germany for their coke when the colony possesses unlimited supplies of coal from which excellent coke can be manufactured. It is true that complaints have been heard that the colonial coke contains a higher percentage of ash than the imported coke, and that it is too friable, causing a large percentage of loss through abrasion in transport, while the coke, it has been said, arrives in such small pieces as to be unfit for smelting the fine lead ores. A few years ago, however, Mr. Pittman, in a report upon this subject, brought figures to prove that much of the foreign coke used by the Broken Hill Proprietary Company contained a greater percentage of ash than some of the colonial-made cokes; also that the strength—or capacity for resisting breakage—of the colonial cokes was greater—in some instances much greater—than that of the imported coke.

At the old Bulli mine a coal seam 6 feet thick has been for about half that thickness transformed into a sort of natural coke, apparently through the intrusion of igneous matter underneath the seam. This natural coke is largely used on the Sydney tram-motors.

Of the quantities of coke manufactured during the last seven years in New South Wales, there were produced from the Northern mines 15,886 tons in 1890, 9,474 tons in 1891, 5,245 tons in 1892, 12,262 tons in 1893, 13,602 tons in 1894, 11,326 tons in 1895, and 10,398 tons in 1896; while the Southern and Western mines produced 15,211 tons in 1890, 20,836 tons in 1891, 2,654 tons in 1892 5,596 tons in 1893, 20,856 tons in 1894, 16,304 tons in 1895, and 15,953 tons in 1896.

KEROSENE SHALE.

This mineral is found in various parts of the colony, but principally at Hartley, Katoomba, Megalong, Bathgate, near Wallerawang, Joadja Creek, Berrima, Mount Kembla, Burragorang, and Greta; and also at Colley Creek, near Murrurundi, in the Capertee district, and in the valley of the Wolgan River. The shale occurs in saucer-shaped deposits, varying in thickness from a few inches to 6 feet. It is a species of cannel-coal, similar to the Boghead mineral of Scotland, but yielding a much larger percentage of volatile hydro-carbon than the Scotch mineral. The richest quality yields about 100 to 130 gallons of crude oil per ton, or 17,000 to 18,000 cubic feet of gas, with an illuminating power of thirty-five to forty sperm candles when gas only is extracted from the shale. The specific gravity of the best Joadja Creek and Hartley shale is 1·06, the amount of sulphur 0·49 per cent., and the yield of tar 40 gallons per ton. It is found advantageous for mixing with ordinary coal for the manufacture of gas, and is largely exported to Great Britain, America, and other foreign countries, as well as to the neighbouring Colonies, for gas purposes. On analysis the following result was obtained from average specimens:—

Volatile Hydro-carbons, including moisture............	82·50	per cent.
Fixed Carbon	6·50	,,
Ash	11·00	,,

At present only two companies—the New South Wales Shale and Oil Company and the Australian Kerosene Oil and Mineral Company—work kerosene shale in the colony, their mines being situated at Hartley Vale, Genowlan, Ruined Castle, and Nellie's Glen, in the Western District; and at Joadja, in the Southern district. These companies not only raise shale for export, but also manufacture from it petroleum oil and other products. The production of kerosene shale from the opening of the mines in 1865 to the end of 1896 amounts to 895,334 tons, of the value of £1,795,213, as shown in the following table:—

Year.	Quantity.	Average price per ton.	Total value.	Year.	Quantity.	Average price per ton.	Total value.
	tons.	£ s. d.	£		tons.	£ s. d.	£
1865–67	7,419	3 9 5	25,749	1889	40,561	1 18 3	77,667
1868–72	58,772	2 13 9	157,886	1890	56,010	1 17 2	104,103
1873–77	71,108	2 12 9	187,793	1891	40,349	1 18 9	78,160
1878–82	152,050	1 18 8	293,729	1892	74,197	1 16 8	136,079
1883	49,250	1 16 11	90,861	1893	55,660	1 16 4	101,220
1884	31,618	2 5 8	72,176	1894	21,171	1 10 0	31,781
1885	27,462	2 9 0	67,239	1895	59,426	1 5 4	75,219
1886	43,563	2 5 11	99,976	1896	31,839	1 1 6	34,202
1887	40,010	2 3 10	87,761				
1888	34,869	2 2 3	73,612	Total ...	895,334	2 0 1	1,795,213

The features of this table are the steady fall in the average price of the mineral and the fluctuating production. There is no special reason for the rise and fall in the quantity of shale produced from year to year beyond the irregularity in the orders coming forward for export, and the slackening of mining operations while the mineral at grass is being reduced. It does not necessarily follow, either, that the whole production of any one year is put to actual use. A certain proportion of second-grade mineral must be taken out with the first quality, and as there is only an outside demand for the higher grade, it depends altogether upon their ability to compete with the imported oil whether the local companies make use of the second quality at all. The number of miners employed in the shale mines of the colony in 1896 was 161 under ground and 66 above ground, or a total of 227.

DIAMONDS AND OTHER GEM-STONES.

The existence of diamonds and other gem-stones in the territory of New South Wales has been known for many years, but no attempt was made to work the deposits until the year 1872. In the course of the following year several deposits of diamantiferous wash were discovered in the country near Inverell, in the New England district. The number of diamonds found in the colony to the end of 1896 is estimated at 107,000, the largest being one of 5⅝ carats, or 16·2 grains. The diamonds occur in old tertiary river drifts, and in the more recent drifts derived from them. The deposits, which occur in the Inverell, Bingara, Mittagong, Cudgegong, and Narrabri districts, are extensive, and have not yet been thoroughly prospected. The best of the New South Wales diamonds are harder and much whiter than the South African diamonds, and are classified as on a par with the best Brazilian gems. During the year 1889 the Malacca Company, near Tingha, found diamonds weighing 2,195⅝ carats, valued at £878 5s. In 1891 no less than 12,000 carats of diamonds were won in the Tingha and Inverell districts, but no value is given. In 1892 as many as 2,250 diamonds were obtained from the

Monte Christo Mine at Bingara alone. The majority of diamonds obtained in this district weigh from ⅛ to ⅓ carat, while the largest vary from 2 to 3 carats. The total output of the Bingara district to the end of 1893 is said to have been about 150,000 carats, valued at £15,375. In 1894 the only work done was prospecting in the Bingara, Mittagong and Denison Town districts; and in 1895 the industry was still quiet, but at Boggy Camp Diamond Field, 16 miles west of Tingha, a revival took place during the year, and 4,100 stones, weighing in the aggregate 1,313 carats, and valued at £400, were obtained. No estimate of the returns in 1896 were obtained from this field, but the output from the Bingara diamond-field for the year is set down at 3,000 carats.

Other gem-stones, including the sapphire, emerald, oriental emerald, ruby, opal, amethyst, garnet, chrysolite, topaz, cairngorm, onyx, zircon, etc., have been found in the gold and tin-bearing drifts and river gravels in numerous localities throughout the colony. The Emerald Proprietary Company, in the Emmaville district, have sunk two shafts, 100 ft. and 50 ft. respectively; and 25,000 carats have been won in a rough state. Their value when cut and finished, if of the best quality, is about £2 per carat. Owing to the difficulties of extraction, and the low price of the gems in the London market, the mines have been closed for three years.

The finest opal known is obtained in the Upper Cretaceous formation at White Cliffs, near Wilcannia, and at these mines over 400 men find constant employment. During the year 1895 good stone was found at a depth of 50 feet, and as the lower levels are reached the patches of opal appear to improve in quality and to become more regular and frequent. On block 7 a patch of stone was found which realised over £3,000. It is difficult to state with exactitude the value of the production, but it is believed that stone to the value of £23,000 was sold during the three years ended 1895, while for 1896 alone the production is estimated at £25,000. The quality of the stone found on the fields varies considerably, some only realising 10s. per oz., whilst the best quality occasionally realises as much as £42 per oz. The best market for the gems is Germany, where they find a ready sale; but it is stated that the principal gem merchants of Europe have now agents on the field for the purchase of the stone.

Topazes are obtained largely at Oban, in the Glen Innes division; but the price obtained is very low, and only one sale, to the amount of £20, was reported during the year 1895. Turquoises have been discovered at Mount Lorigan, near Wagonga, and work was carried on during the year 1895 by means of aid granted from the Prospecting Vote. In 1896, however, the mine was closed down.

MICA.

Mica is known to exist in many parts of New South Wales, but has never yet been worked, although there is a considerable demand for the article, especially if in blocks of fairly large size that could easily be split into thin plates. It is to be met with in the numerous granitic areas that occur in various parts of the colony, especially in the coarsely-crystalline granitic formations in the Silverton district, and elsewhere in the Barrier Ranges.

ASBESTOS.

Asbestos has been found in veins in serpentine in the Gundagai, Bathurst, and Barrier Range districts—in the last-named in considerable quantities.

ALUNITE.

Alunite occurs as a large deposit at Bulladelah, about 35 miles from Port Stephens, the yield averaging about 80 per cent. of alum. During 1896, 1,372 tons of alunite, valued at £4,116, were shipped to England, where it is found that the stone can be treated more cheaply than is possible locally, and in consequence the company's works at Bulladelah are closed.

MARBLE, BUILDING STONES, FIRE-CLAYS, AND SLATES.

The colony possesses a most abundant supply of all the various kinds of stone and other materials for the building and adornment of its cities. Marble limestone is found in great masses near Wallerawang, Bathurst, Molong, Marulan, Tamworth, and Kempsey, localities which are all within convenient distance of the great arteries of communication; and it is obtainable in all its different varieties. Marble quarries have been opened at Cow Flat, Marulan, Wallerawang, Orange, and Tamworth; but only those of Cow Flat and Marulan are being worked. Granite is found near Goulburn, Moruya, Trial Bay, and on Montagu Island, as well as at many other places throughout the colony. Most of the granite hitherto used in Sydney has been obtained from Moruya, a port about 180 miles south of Sydney.

Limestone flux is supplied to the Broken Hill silver-mines from quarries at Tarrawingie, which are connected with the mines by a tramway, 30 miles in length. The quantity so supplied during 1891 was 74,057 tons, valued at £65,357; during 1892, 103,368 tons, valued at £93,031; during 1893, 130,635 tons, valued at £111,041; during 1894, 89,990 tons, valued at £69,290; during 1895, 104,194 tons, valued at £68,160; and during 1896, 88,924 tons, valued at £54,261. About 120 men are employed in and about these quarries. A company forwarded large quantities of limestone from Myall Lake to Sydney in 1892, and commenced the manufacture of hydraulic lime; but owing to the lack of a market for the product the operations were discontinued.

The Hawkesbury formation, over which the City of Sydney is built, provides the city with an inexhaustible supply of sandstone, of the highest quality for building purposes. This material is admirably adapted for architectural effect, being of a pleasant colour, fine grain, and very easily worked. The beauty of Sydney street architecture is due in no inconsiderable degree to the free use of this excellent sandstone.

Basalt or bluestone, which is extensively used as road metal and for the ballasting of the railway lines, is obtained at Kiama, Prospect, Pennant Hills, and Bowral. This stone has not yet been used to any extent for building purposes.

Syenite, a stone even harder than bluestone, is found at Bowral and other places; as a building material it is equal to granite in solidity, and, like granite, it takes a beautiful polish. The success which has attended its first use as a building stone, together with the short distance from the metropolis at which it is to be found, will no doubt cause it to be extensively used in the future for large structures.

Kaolin is being worked at Tichbourne, near Parkes. The clay is of excellent quality, and superior to the best obtained in England or France.

The coal measures also contain numerous beds of fire-clays; and in every part of the colony excellent clays, well adapted for brick-making purposes, are extensively worked. Slates are found in several districts, but are principally quarried at Gundagai and in the surrounding district, as well as at Bathurst and Goulburn. It will be seen, therefore, that the colony has no need to import building material of any description, as it possesses a supply amply sufficient to provide for its own wants and those of its neighbours.

Graphite has been obtained at Undercliff, in the New England district, from a lode 6 ft. wide. It is of inferior quality.

PROSPECTING VOTE.

Following the practice of the neighbouring colony of Victoria, the Government has for some years past devoted a sum annually to encouraging prospecting for gold, and in 1889 the conditions of the vote were so amended as to embrace all minerals. The amount set apart annually is usually £20,000. For the year 1892, however, it was fixed at twice that sum; and in 1896, £25,000. With the exception of the Mount Drysdale gold-field, which was discovered in 1892, it cannot be claimed that any discovery of a large payable field has so far been made by means of the Prospecting Vote, but at the same time it may be said that some rich working claims have been opened up with the aid granted. Also, in addition to the employment of labour, the proving of a lode or reef to be payable invariably leads to the taking up of large areas of adjoining land under the Mining Act, from which increased revenue is derived by the State. From the year 1888 to the end of November, 1896, the number of such discoveries reported to the Department of Mines was 173, while the amount expended in prospecting work during that time was £170,480.

Miners desiring a grant from the vote have to satisfy the Prospecting Board that the locality proposed to be prospected is one likely to yield the mineral sought for, and that the mode of operations is suitable for its discovery. Aid is given in deserving cases up to 50 per cent. of the value of the work done and of the necessary implements and materials. Miners who have been assisted from the vote are not entitled to claim any reward that may be offered for the discovery of any new gold or mineral fields.

DIAMOND DRILLS.

The use of the diamond drill in searching for minerals dates only from 1881, and boring by the Department of Mines commenced much later. The drills now in use belong for the most part to the State, and are lent to private persons on terms fixed by regulation, the charges being £2 2s. on application, towards cost of inspection; £10 per week for cost of diamonds and wear and tear of machinery from start of bore till completion; wages of engineer and assistants; cost of tubes damaged, destroyed, or which cannot be withdrawn from bores; all charges for freight, etc., on machinery, both on being sent and returned; and cost of all fuel and water necessary for working the drill. An abatement is, however, granted by the Mines Department in special cases. Arrangements may also be made for the work to be done at a fixed price per foot for various depths.

During the year 1896 the depth bored was 2,143 feet, the average cost per foot being 11s. $4\frac{13}{16}$d., as compared with 30s. $3\frac{7}{8}$d. in 1895. The reduced rate was due to shallow boring and better strata. The earnings of the diamond drills during 1896 amounted to £1,432, and the amount paid into the Treasury as revenue from this source was £825. In addition to the bores shown in the subjoined table, three bores were put down during 1896 at the island of Funafuti, in the Ellice Group, to gain more authentic scientific information in connection with coral beds :—

Locality.	Strata.	Mineral for which bored.	Total depth bored during 1896.		Cost per foot.	
			ft.	in.	s.	d.
Captain's Flat, No. 1	Porphyry	Gold, silver, copper, and lead	247	0	11	$4\frac{11}{16}$
,, No. 2			646	0		
Forest Reef, No. 1	Basalt	Gold	161	0		
,, No. 2			218	9		
,, No. 3			237	5		
,, No. 4			213	6		
,, No. 5			216	0		
,, No. 6			202	6		
Grassy Gully	Felsite.........	Auriferous quartz veins.	Commenced at close of year.			

Owing principally to the financial depression, the use of the diamond drill fell off considerably, the depth bored during 1895 having been 299 feet; during 1894, 557 feet; during 1893, 1,903 feet; during 1892, 4,139 feet; and during 1891, 7,797 feet. New regulations, under which the use of the diamond drill can be made available at an almost nominal cost in basaltic or other mineral country which has not been prospected, and which is either too hard, wet, or deep, and, therefore, too expensive for sinking, were published in the course of 1896, and during that year the total depth bored increased to 2,143 feet, as already stated.

LAND LEGISLATION AND ADMINISTRATION.

THE systems adopted for the settlement of population on the lands of New South Wales have been many, and they have differed widely at various stages of the colony's progress. In the early days of colonization the Governor had the sole power of granting lands, which he did under prescribed conditions, such as the payment of an annual quit-rent, the cultivation of a certain proportion of the area granted, and other services specified in instructions received from time to time from the Secretary of State. The first instructions issued to Governor Phillip, on the 25th April, 1787, authorized him to make grants only to emancipated prisoners, in the following terms:—"To every male shall be granted 30 acres of land, and in case he shall be married, 20 acres more; and for every child who may be with them at the time of making the said grant, a further quantity of 10 acres, free of all fees, taxes, quit-rents, and other acknowledgments for the space of ten years." The annual quit-rent to be paid on these grants was afterwards fixed at 6d. for 30 acres. The first settler was a prisoner of the name of James Ruse, who, having completed his sentence, entered on his farm of 30 acres at Parramatta on the 25th February, 1789.

Additional instructions were issued by the Secretary of State on 20th August, 1789, extending the privilege of obtaining grants to such of the non-commissioned officers and men of the detachment of marines serving in New South Wales as were desirous of remaining in the territory after obtaining their discharge. The Governor was further requested to facilitate the settlement of free persons who might be disposed to emigrate with the view of becoming settlers in the colony, by giving them grants of land not exceeding the maximum area granted to non-commissioned officers, viz., 100 acres, subject to the same quit-rent, the annual amount of which was 1s. for every fifty acres, payable at the expiration of five years after the issue of a grant. In the original instructions no mention was made of grants to officers, but this omission was afterwards rectified. These early grants were made on condition that a certain proportion of the land should be cultivated, but although this condition was not always complied with, no grants were ever cancelled in consequence. As to the payment of quit-rents, Mr. Commissioner Bigge, in his report on the administration of Governor Macquarie, states that from 1809 to 1823 no quit-rents were collected.

With regard to settlement in the town of Sydney, grants were not made until the year 1811, when the necessary authority to do so was given in a letter from the Secretary of State, dated the 26th July, and allotments were granted on lease only for periods of fourteen or twenty-one years. Previous to the building regulations issued by Governor Macquarie on the 18th August, 1810, no attention was paid to the regular admeasurement of town allotments or to the formation of streets.

Quit-rents on leases and grants of town allotments varied in amount according to the Governor at whose discretion they were imposed. Leases of fourteen and twenty-one years were subject to annual quit-rents of 2s. 6d., 5s., 10s., and 20s. each; and from 1811 to 1814 grants of town allotments were charged at the rate of 2s. 6d. per rod per annum; but on the 21st March, 1814, the following scale of quit-rents for town allotments was established by Governor Macquarie :—

Gradation.	Leases.						Grants.					
	Sydney.			Other Towns.			Sydney.			Other Towns.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Maximum	2	0	0	1	0	0	3	0	0	2	0	0
Minimum	0	10	0	0	10	0	1	0	0	0	3	4
Above 20 rods, per additional rod, but not exceeding the maximum..	0	0	2	0	0	1	0	0	4	0	0	3

The method of disposing of Crown lands, and the scale of quit-rents chargeable, suffered no alteration until the issue of the Government and General Order of the 5th November, 1823. By this order the terms upon which lands could be obtained in New South Wales were modified, the annual quit-rent being raised to 3s. for every 20 acres, payable immediately if the lands had been obtained as an additional grant, but if otherwise at the commencement of the sixth year.

Though a certain limit appears to have been fixed as to the area of grants, the early Governors often overstepped their instructions in this direction. Governor Macquarie, in particular, was deemed to have disposed of the Crown lands in too liberal a fashion, and the result of an investigation into his administration led the British Government to issue to his successors instructions of a more definite and stringent character with regard to the alienation of Crown lands.

The instructions to Sir Thomas Brisbane introduced the principle of alienation of lands by sale to free settlers who arrived in the colony with a certain amount of available capital, and the grants were made on condition that a certain proportion of the land should be cultivated, or improvements of corresponding value erected thereon, and a given number of convicts maintained free of expense to the Government. On the 8th November, 1824, it was further proclaimed that a grant of 100 acres would be given to any settler for every convict maintained by him free of expense to the Government; but applications for grants under this condition became so frequent that the order was rescinded on the 16th March, 1826. By a Government and General Order, dated the 24th March, 1825, land was allowed to be sold by private tender at a minimum price of 5s. per acre. The order notified that the Governor would receive applications for the sale of waste lands; but no person was permitted to purchase more than 4,000 acres, nor any family more than 5,000 acres. The price of unlocated Crown lands in the county of Cumberland, or of any of the lands situated on the west of the Nepean River, was raised to a rate ranging from 7s. 6d. to 10s. per acre. The disposal of lands by sale did not, however, interfere with the ordinary method of alienating town allotments and country lands by grants subject to the payment of quit-rents.

The progress of settlement, and the extension of the pastoral industry (which was already taking place) rendered it necessary that some classification of lands should be made in accordance with natural adaptability to the various purposes of colonization. On the 18th May, 1825, instructions were received from the Secretary of State, directing that the colony should be divided into counties, hundreds, and parishes, and that a valuation should be made of the lands throughout the territory, with a view of fixing an average price at which all the disposable lands should be put up for sale. The grants made thereafter, within the limits in which settlement was allowed, were subject to the payment of a quit-rent of 15s. for every 100 acres, redeemable at twenty years' purchase. Three Land Commissioners (of whom Sir Thomas Mitchell, the Surveyor-General, was President) were appointed on the 10th January, 1826, to give effect to these instructions. The Commissioners completed their labours in about three years, and divided the territory into nineteen counties, covering some 34,505 square miles, or 22,083,200 acres of land. During this period certain modifications were introduced; the sale of land was suspended, and the quit-rents charged on grants were altered to a rate of 5 per cent. per annum on the value fixed by the Commissioners, whilst on grants in extension of previous grants, and on lands reserved to settlers for their choice of purchase, a charge was made at the rate of 20s. per 100 acres. On the 28th August, 1828, the quit-rent on primary grants was altered to an annual sum of 2d. per acre, and this rate remained in force until grants were abolished except for public purposes, and the principle of sale by public auction, in lieu of private tender, was made the sole means of alienating Crown lands. The Land Commission was abolished on the 6th May, 1830.

Great difficulty has been experienced in determining the area granted and sold by private tender from the date of the first settlement to the year 1831, when the system of land alienation by auction sale was introduced; but it has been ascertained from authentic sources that the following areas were disposed of as under:—

	Acres.
Area granted by Governors up to 1810	177,500
do Governor Macquarie, 1810–23	400,000
Area granted and sold 1824–31	3,386,250
Total	3,963,750

From this total, however, there should be deducted 57,423 acres of land granted in Van Diemen's Land, reducing to 3,906,327 acres the area granted and sold within the present limits of New South Wales.

The system of granting land upon the payment of an annual quit-rent was at all times subject to many difficulties, and the collection of these dues appears to have been carried out in a very perfunctory manner. These difficulties led the Government in later years to offer special inducements for the redemption of quit-rents. On the 9th October, 1846, the following notice was proclaimed:—"All lands for which twenty years' quit-rent has been paid shall be free from further charge, and any persons who have paid more than twenty years' quit-rent shall have the difference refunded to them." On the 30th July, 1849, it was further notified that at any time thenceforward any person might redeem his future quit-rent by an equivalent cash payment. Finally, a Government notice of the 13th May, 1851, directed that all quit-rents of a higher annual rental than 2s. for every 100 acres would be reduced to that uniform rate at the expiration of the year 1851; and also that the quit-rents on allotments in country towns would be reduced to one-fourth of the rate fixed in the deeds of grant, with the power of redemption at twenty years' purchase.

With regard to allotments in Sydney and other large towns, which were either granted or leased under the regulations established by Governor Macquarie, the rates levied by him in 1814 were first altered by Sir Thomas Brisbane as follow:—

On leases for twenty-one years	6d. per rod.
On town grants	9d. ,,

A Government order, dated the 29th March, 1829, established the following regulations:—"Upon the approval of applications for town allotments a grant of the *fee simple* will be given, it being the intention of the Government not to issue leases in the future. The rates of annual quit-rents in the several classes of towns shall be as follow:—

1. Sydney	6d. per sq. perch.
2. Seaport towns	5d. ,,
3. Towns at the head of navigable rivers	4d. ,,
4. Inland towns	2d. ,,

The said quit-rents shall be unredeemable for ever, but they shall not commence until seven years after the date of authority to take possession, except in the towns of Parramatta and Windsor." Leases were, however, re-established by a Government notice of the 25th August, 1834, by which allotments were allowed to be leased in the country towns only, with covenant to convert the same into grants either upon payment of twenty-one years' quit-rent or upon the erection of buildings to the value of £1,000.

INTRODUCTION OF LAND SALES.

The alienation of land to settlers by grant was abolished by Viscount Goderich, Secretary of State for the Colonies. Under the Government and General Order dated the 14th February, 1831, it was notified that no Crown lands were to be disposed of otherwise than by public competition, the minimum price being fixed at 5s. per acre. Settlers were allowed to select within the settled districts only, and the land thus selected was submitted to auction and sold to the highest bidder, the selector being generally the purchaser. In 1839 the upset price was raised to 12s. per acre, and the practice was introduced of varying this minimum according to the presumed value of the land, making it, as a general rule, from 10 to 20 per cent. less than the price of the last land sold of the same quality, and in the same locality. In the Port Phillip district, land was only brought to sale at the discretion of the Governor.

Until the year 1841 regulations for the sale of land were issued by the Secretary of State; but on the 21st August of that year additional instructions were forwarded to Sir George Gipps, stating that in future it should be competent for the Governor, with the advice of the Executive Council, to revoke the order in force, and to substitute regulations passed by the Colonial Government with regard to the disposal of public lands.

Although grants had been virtually abolished in 1831, a certain quantity of land was still being conveyed to settlers in virtue of promises made by former Governors. The following figures show the area of land granted and sold during the period 1832–1840 :—

Year.	Area granted.	Area sold.	Year.	Area granted.	Area sold.
	acres.	acres.		acres.	acres.
1832	15,843	20,860	1837	6,090	370,288
1833	14,639	29,001	1838	63,160	277,466
1834	27,861	91,400	1839	16,832	234,272
1835	5,271	271,947	1840	5,243	105,900
1836	16,132	389,546			

In addition to the above, there were sold in the district of Port Phillip, or the Southern District, in—

1837	88 acres.
1838	38,694 ,,
1839	38,347 ,,
1840	83,888 ,,

A new division of the territory had been made under the Land Regulations issued by the Governor and Executive Council on the 21st June, 1841, the Northern District including the country around Moreton Bay; the Middle District, the nineteen settled counties; and the Southern District, the Port Phillip settlement and Gippsland. In the Middle and Northern Districts the upset price was maintained at 12s. per acre, but it was raised to 20s. per acre in the Port Phillip District. These Regulations were again superseded by an Act of the Imperial Parliament, entitled "An Act for regulating the sale of waste lands belonging to the Crown in the Australian colonies," which came into force on the 22nd June, 1842. Under this Act the principle of sale at auction was maintained, but the lands applied for were to be surveyed before being put up at quarterly sale, the upset price being fixed at 20s. per acre, payable forthwith. Blocks of unsurveyed land, containing 20,000 acres or more, could, however, be sold in one lot by private contract at not less than the minimum price.

Under the Imperial Act of the 9th March, 1847, amending the above, a new classification of lands took place, and the territory was again divided into—first, settled districts, including the nineteen counties, and the lands in the counties of Stanley and Port Phillip immediately surrounding the settlements at Moreton Bay and Melbourne respectively; second, intermediate districts, comprising a belt of land from 50 to 200 miles inland beyond the boundaries of the settled districts, and in which pastoral occupation had already spread; and, third, unsettled districts, extending westward to the extreme limits of the colony. This amending Act did not affect the disposal of Crown lands by public auction or private contract, but it introduced a system of leasing the lands for pastoral purposes, for various terms, in each of the three divisions. During the currency of a lease the land was saleable only to the lessee, and after the expiration of the term the lessee was also allowed a pre-emptive right over all or any part of the land at the upset price of £1 per acre. The legislation of 1847 remained in force in New South Wales, as regards the disposal of public lands by auction sale at £1 per acre, until the year 1861; and in the colonies of Victoria and Queensland, which were separated from the mother colony in 1851 and 1859 respectively, until repealed by Acts of the local Parliaments. The following table shows the area of land sold and granted in New South Wales from the year 1841 to 1861 inclusive under the regulations above described:—

Year.	Area granted.	Area sold.	Year.	Area granted.	Area sold.
	acres.	acres.		acres.	acres.
1841	18	31,275	1852	57	25,812
1842	15	5,713	1853	612	65,870
1843	7	4,037	1854	2,085	78,221
1844	28	3,701	1855	297	122,667
1845	34	3,763	1856	227	163,952
1846	64	3,036	1857	85	137,867
1847	834	2,602	1858	444	123,548
1848	112	3,232	1859	518	155,171
1849	861	7,341	1860	193	109,217
1850	548	12,191	1861	459	189,937
1851	103	21,747			

From 1841 to 1851 there were also granted and sold in the Port Phillip District the following areas :—

Year.	Area granted.	Area sold.	Year.	Area granted.	Area sold.
	acres.	acres.		acres.	acres.
1841	......	61,197	1846	6	4,578
1842	4	27	1847	17	26,073
1843	3	831	1848	2	18,007
1844	......	181	1849	46	28,091
1845	......	3,685	1850	108	40,043

In the District of Moreton Bay the following areas were sold and granted from its first settlement in 1842 to its separation in 1859 :—

Year.	Area granted.	Area sold.	Year.	Area granted.	Area sold.
	acres.	acres.		acres.	acres.
1842	2	11	1851	5	2,282
1843	16	360	1852	105	739
1844	5	378	1853	70	7,805
1845	1	299	1854	......	5,175
1846	......	70	1855	......	5,285
1847	......	51	1856	195	3,802
1848	2	240	1857	8	7,235
1849	8	825	1858	9	14,063
1850	4	249	1859	......	11,620

Thus, from the foundation of the colony to the inauguration of the legislation of 1861, public lands, both in the mother colony and in the territories administered from Sydney, had been disposed of as follows :—

Period.	In New South Wales proper.	In Van Diemen's Land.	In Port Phillip District.	In Moreton Bay District.
	acres.	acres.	acres.	acres.
From 1787 to 1823	520,077	57,423	....	......
From 1824 to 1836	4,268,750	....	....	......
From the first settlement in Port Phillip in 1837 to 1841	1,110,544	....	222,214	......
From the first settlement in Moreton Bay in 1842 to the separation of Port Phillip in 1850	48,119	....	121,702	2,521
From 1851 to the separation of Moreton Bay in 1859	899,283	....	....	58,398
During 1860–61	299,806	....	....	......
Total from 1787 to 1861 inclusive ...	7,146,579	57,423	343,916	60,919

As regards the area granted and sold in New South Wales pr under the various systems described in the preceding pages, 7,146,579 acres disposed of from the first day of the occupation of territory to the end of the year 1861 were alienated as follows :—

		Ac
1.	By grants and sales by private tender to close of 1831	3,90
2.	,, ,, in virtue of promises of early Governors made prior to 1831, from 1832–40 inclusive................................	17
3.	,, sales at auction, at 5s., 7s. 6d., and 10s. per acre, from 1832-38 inclusive	1,45
4.	,, ,, ,, ,, 12s. and over per acre, at Governor's discretion, from 1839–41 inclusive	37
5.	,, , ,, ,, 20s. per acre, from 1842-46 inclusive...........	2
6.	,, ,, ,, and by purchases in virtue of pre-emptive rights, from 1847-61 inclusive	1,21
7.	,, grants for public purposes, and for grants in virtue of promise of Governor made prior to the year 1831, and grants in exchange for lands resumed from 1841-61 inclusive	
	Total alienated on 31st December, 1861..............	7,14

In dealing with the constitution of rural property in the col it is necessary to mention that, in addition to the modes of aliena of the public lands already described, certain grants were under special enactments. Instructions issued to Sir Thomas Bris directed the Governor to reserve one-seventh of the Crown lands in county for the purpose of church and school establishments, but t instructions do not seem to have been fully carried out, as the rese tions did not amount to anything like the proportional area speci These reserves were as follow :—County of Bathurst, 136,157 ac Camden, 11,428 acres; Cumberland, 28,081 acres; Cook, 100 ac Durham, 29,453 acres; Gloucester, 176,091 acres; Hunter, 2,314 ac Northumberland, 15,362 acres; Roxburgh, 1,000 acres; and Vincent, 43,500 acres; making a total area of 443,486 acres, w subsequent surveys and computation of the area within the limit the reservations show to be actually 454,050 acres. These lands administered by the Clergy and School Lands Corporation until abolition of that body by Order of Council of the 4th February, 1 whereupon all lands vested in the same reverted to the Crown, an agent was appointed to determine the claims of purchasers, to w deeds of grant were made, the said lands being secured to them subsequent Act of Council dated the 5th August, 1834. Of the mentioned above, 171,746 acres were alienated up to the year 1 when, by the Church and School Lands Dedication Act of that year balance of 282,304 acres came under the control of that Depart to be administered for the purposes of Public Instruction. The unsold Church and School Lands thus transferred are situated as follow:—In the County of Gloucester, 172,297 acres; Bathurst, 83,649 acres; St. Vincent, 18,229 acres; Cumberland, 3,973 acres; Durham, 3,361 acres; Northumberland, 744 acres; Hunter, 48 acres; and Camden, 3 acres.

The Australian Agricultural Company was incorporated by an Act of the Imperial Parliament, dated the 21st June, 1824, and a promise of a grant of 1,000,000 acres made to this Company was fulfilled in the following year. Originally a grant containing 1,048,960 acres was selected in the country surrounding Port Stephens, but in 1832 the Company was authorised to exchange a portion of this grant, containing 600,000 acres, for two allotments situated on the Peel River and on the Liverpool Plains. These three grants contain, according to the latest surveys, the following areas:—

	Acres.
Port Stephens Estate, county of Gloucester.........	464,640
Peel River Estate, county of Parry	249,600
Warrah Estate, county of Buckland	313,298
Total	1,027,538

In addition to this large area of land, the Company also obtained from the Crown the promise of a lease of the coal-fields at Port Hunter (Newcastle) for 31 years. This was, however, afterwards exchanged for a grant of 500 acres, an area which was increased in 1828 to 2,000 acres of coal land, upon which the Company's collieries are now situated.

Occupation of Pastoral Lands

The pastoral lands of New South Wales have been occupied under various systems. Land was held for grazing in the early days by virtue of tickets of occupation, which ceased to be issued on the 1st May, 1827, after which date persons holding such lands were required to pay a quit-rent of 20s. per 100 acres per annum, and to vacate the land at six months' notice. The requirements of the settlers for depasturing their increasing stock induced them to occupy Crown lands without any right except that of first discovery, and as they extended their operations inland the Legislature found itself compelled, on the 28th August, 1833, to pass an Act protecting Crown lands from intrusion and trespass, and commissioners were appointed for the purpose of safeguarding the interests of the State.

The discovery of new country soon had the effect of taking many of the pioneer squatters beyond the limits of settlement as proclaimed on the 14th

October, 1829, and without authority or license large tracts of unlocated Crown lands were occupied. Fresh regulations, in which severe penalties were enacted, were issued on the 29th July, 1836, with the view of restraining this unauthorised occupation of the waste lands of the colony. These regulations being in many cases disregarded, an Act was passed on the 22nd March, 1839, to further restrain this unauthorised occupation; and to provide the means for defraying the expense of police and commissioners appointed by the Government to protect its estate in the border districts, a yearly assessment was levied upon stock at the following rates:—½d. for every sheep; 1½d. per head of cattle; and 3d. for every horse.

The Imperial Act of the 9th March, 1847, which rendered it lawful for the Queen, by any Order in Council, to make and establish such regulations as should seem meet for the sale and occupation of the waste-lands, was immediately followed by an order introducing an entirely different system in legislation for the pastoral occupation of lands in New South Wales. Hitherto the tenure had been a yearly one, and the fee was paid on the extent of land occupied by the squatter. For this system was substituted fixity of tenure of lease, and the license fee was calculated upon the stock-carrying capacity of the run. Under the regulations issued in 1847, the term of the pastoral leases in the unsettled districts was fixed at fourteen years; in the intermediate division this term was reduced to eight years; and in the settled districts the yearly tenure was retained. The licensing fee was charged at the rate of £10 for 4,000 sheep, or a proportional number of cattle—which was the minimum at which the stock-carrying capabilities of a run could be assessed—and £2 10s. for every additional 1,000 sheep, or proportionate number of cattle, which the run was estimated to carry. In the settled districts lands were let for pastoral purposes only, in sections of not less than 1 square mile in area, the annual rental for each section being fixed at 10s. The holders of alienated lands were permitted to depasture their stock upon Crown lands adjoining their holdings free of charge, this permission, however, constituting only a commonage right. The Occupation Act of 1861, which abolished the Orders in Council, inaugurated a new system, limiting the tenure of pastoral leases to five years in the unsettled and intermediate or second-class settled districts, and leaving the whole of the pastoral leases open to the operations of the free selectors. The evils resulting from this system led Parliament to adopt in 1884, 1889, and finally in 1895, the measures at present in force, the provisions of which are described further on.

ROBERTSON'S LANDS ACT.

The conditions of colonization greatly altered under the powerful attraction of the gold-fields, and after the first excitement of the rush for gold had died out the question of land settlement had to be dealt with in an entirely new spirit, to meet the wants of a class of immigrants of a different type from those contemplated by former enactments, the result being the passing of the Crown Lands Act of 1861, under the leadership of Sir John Robertson. Before this Act became law the conditions of settlement rendered it difficult for men of small means to establish themselves with a fair chance of success. The new measure aimed at facilitating the settlement of an industrial agricultural population side by side with the pastoral tenants, and with this view the Act introduced a principle entirely new to the land legislation of the colony, namely, that of free selection, in limited areas, *before survey*. To this privilege was attached the condition of *bona fide* residence, and the land was to be sold at a fixed price, carrying interest on the balance outstanding, after deducting the amount of the deposit, at the rate of 5 per cent. per annum. This provision, however, was modified by the Amending Act of 1875, under which annual instalments were payable, and the option was given to any conditional purchaser of lands taken up prior to this amendment to avail himself of the change in the method of payment. The system of unconditional sales was, however, continued under the Act of 1861; and during the twenty-three years in which this Act was in operation there were sold 23,470,140 acres conditionally, and 15,572,001 acres by auction, improvement purchase, in virtue of pre-emptive right, or otherwise without conditions, the total area alienated being 39,042,141 acres. In a very large number of cases the land selected or purchased reverted to the State, so that the absolute area sold or in process of sale when the Act of 1884 came into force amounted to only 32,819,023 acres, besides 7,146,579 acres alienated prior to 1861.

THE CROWN LANDS ACTS OF 1884 AND 1889.

The Act of 1861 was, after many amendments, superseded by that of 1884, with the supplementary enactment of 1889. Though differing widely from the former Act in many important particulars, these measures maintained the principle of free selection before survey, but with one essential difference. Under the original Act the whole area of the Crown lands of the colony was thrown open to free selection, and the lands held under pastoral lease were not exempted from the operation of this law. While maintaining the principle of selection before survey, the aims of the Acts of 1884 and 1889 were to give fixity of tenure to the pastoral lessees and to obtain a larger rental from the public lands, at the same time restricting the area sold unconditionally. For this last purpose the holder of a pastoral lease under the old Act was required to surrender one half of his lease, which was resumed by the Crown for subsequent alienation, leasehold or reserve; the other half remaining in the leasehold occupation of the pastoralist under fixity of tenure for a term of years. It was computed on the 31st December, 1884, when this division was made, that there were within the colony 4,313 leased runs, yielding an annual rental in round figures of £268,500, and forming about 1,600 "stations," estimated to contain the bulk of the unalienated public estate, after allowing for reserves, etc. That the increase in the revenue from pastoral occupation, which was one of the principal objects of the alterations introduced in the land legislation by the Act of 1884, has been realised, may be gathered from the fact that during the financial year 1896–7 the total rental received from the occupation of Crown lands amounted to £719,391. The Act of 1884 became law on the 1st January, 1885, and that of 1889 came into operation on the 1st December of that year.

THE CROWN LANDS ACT OF 1895.

Whatever may have been the merits of the Act of 1861, it conspicuously failed to encourage *bona fide* settlement; nor can it be said that the legislation of 1884 and 1889 succeeded where the original Act had failed, as the accumulation of land in large estates continued, while settlement, properly so called, proceeded very slowly. Expert opinion strongly pointed to the necessity of introducing entirely new principles into the agrarian legislation of the colony, and this has been done in the Crown Lands Act of 1895, which not merely remedies the defects of previous legislation, but, while placing land within easy reach of all, seems to supply, by the introduction of new systems of tenure, viz., homestead selections and settlement leases, something that was needed to transform the land speculators into settlers properly so called.

For the purpose of carrying out land legislation, there are three Land Divisions in the colony, viz., the Eastern, the Central, and the Western. These are subdivided into Land Districts; and a Land Agent, whose duty it is to receive applications for land in accordance with certain regulations, resides in each district. Groups of these districts are joined together under an administrative Board, and form what is called a Local Land Board District. The Land Board consists of a chairman and one or two ordinary members. An appeal to the Land Appeal Court may be made against a decision of the Board. This Court is composed of a President and two Commissioners appointed by the Executive, whose decisions in matters of administration have the force of judgments of the Supreme Court; but whenever questions of law become involved, a case may be submitted to the Supreme Court, either at the written request of the parties interested, or by the Land Appeal Court acting of its own accord. The judgments given on such appeals are, however, subject to final determination by the Privy Council. The conditions of alienation and pastoral occupation of Crown lands differ in each of the three divisions of the colony.

The Eastern Division has an area of 60,450,000 acres, and includes a broad belt of land comprised between the sea-coast and a line nearly parallel thereto. This line starts from a point midway between the small settlements of Bonshaw and Bengalla on the Dumaresq River, on the northern frontier, and terminates at Howlong on the River Murray, and thus embraces the coastal district of the colony, as well as the northern and southern tablelands. In this division lie all the original centres of settlement, and the markets of the colony are more readily accessible to it than to the other districts. In it, moreover, is to be found some of the best agricultural land in New South Wales. For these reasons, the conditions for the purchase and occupation of the Crown lands in the Eastern Division are more restricted than is the case in the Central and Western Divisions.

The Central Division of the colony embraces an area of 55,460,000 acres, extending from north to south between the western limit of the Eastern Division and a line starting from a point on the Macintyre River, where it is crossed by the 149th meridian of east longitude, and following this river and the Darling to the junction of Mara Creek; thence along that creek to the Bogan River, and across to the River Lachlan, between the townships of Euabalong and Condobolin, along the Lachlan to Balranald, and thence to the junction of the Edward River with the Murray, on the frontier of Victoria. The Central Division thus embraces the upper basin of the Darling River in the northern part of the colony, and portions of those of the Lachlan, the Murrumbidgee, and the other affluents of the Murray in the south. The land in this division is mainly devoted to pastoral pursuits; but experience having proved that agriculture can be successfully carried on, the area cultivated has considerably increased. The rainfall, however, being less regular, and the distance from markets greater than in the Eastern Division, and the land, moreover, being of inferior value, the legislation provides for the selection of larger areas than in the latter district.

The Western Division comprises the whole of the land situated between the western limit of the Central Division and the South Australian border. It embraces an area of 79,972,150 acres, watered by the Darling River and its tributaries. This part of New South Wales is essentially devoted to pastoral pursuits. Water conservation and irrigation may in time counteract climatic conditions and irregular rainfall, and make agriculture possible over this large area, as its soil is adapted to the growth of any kind of crop; but legislation in regard to the occupation of the lands of the district is based upon the assumption that for many years to come there will be little inducement for agricultural settlement.

Under the provisions of the various Acts forming the legislation now in force, land may be acquired as an alienation in the following manner:—(1) By conditional purchase; (2) by auction sale; (3) by purchase in virtue of improvements; (4) by special purchase; and (5) by exchange. The most important of these forms is that of conditional purchase.

The new system of homestead selections is practically a form of alienation, the tenure being freehold, subject to an annual charge in perpetuity.

With regard to the leasing of Crown lands, the different forms of occupation are—(1) Conditional leases; (2) settlement leases; (3) improvement leases; (4) pastoral leases; (5) homestead leases; (6) occupation licenses; (7) annual leases; (8) scrub and inferior land leases; (9) snow-land leases; (10) residential leases on mining-fields; (11) mineral leases; (12) special leases; and (13) artesian-well leases.

Conditional Purchases.—An ordinary residential conditional purchase may be obtained in the Eastern and Central Land Divisions, but not in the Western Division, by any person of or over the age of 16 years, with the usual legal qualifications. Ordinary Crown lands are open to selection at a price of £1 per acre. A deposit of 2s. per acre and a survey fee, according to a fixed scale, must be paid at the time of application. The balance, with interest at the rate of 4 per cent. per annum, is payable in thirty instalments of 1s. per acre, covering principal and interest, the first instalment being due at the expiration of the third year. In the Eastern Division the maximum area which can be selected is 640 acres, and the minimum 40 acres; in the Central Division the maximum is 2,560 acres. Every residential conditional purchase carries with it the right of taking up a conditional lease, which, however, cannot exceed three times the area of the conditional purchase, and the total area of both purchase and lease cannot exceed 1,280 acres in the Eastern Division or 2,560 acres in the Central Division.

The holder is required to reside upon his selection for a continuous term of ten years from the date of application, and residence must commence within three months after the application has been confirmed by the Local Land Board. Within three years from the date on which the application is confirmed the land must be enclosed with such a fence as the Board may prescribe; or, at the selector's own option, substantial and permanent improvements may be substituted for fencing. Application may also be made for the suspension of the conditions of residence and of fencing or improvements for a period not exceeding six months; or the suspension of payment of instalments for a period not exceeding twelve months may be granted by the Minister, but in this case the selector must reside on the land.

Additional purchases may be made until the maximum area is reached, and each additional conditional purchase is subject to the conditions of residence, but the place of residence may be on any of the blocks selected, and in certain cases the additional residence is not insisted upon.

At the expiration of five and ten years from the date of application, inquiries are made by the Land Board, and if the conditions have been satisfactorily fulfilled certificates are issued. A conditional purchase may be transferred after the issue of the first certificate—that is, after five years' residence. After the issue of a certificate of conformity, any chase of land of 100 acres or more in extent may be subdivided, the ance paid on a portion, not less than 40 acres, and the deed obtained that part.

he following table shows the total amount payable as principal interest every year on a selection of 40 acres, the price of which, hout interest, is £40. It will be seen that the amount of interest able is £24 3s., making a total of £64 3s., or £1 12s. 1d. per e.

When due.	Payments.	How each payment is applied.		Balance owing.	Amount upon which interest is charged.
		Interest, 4 % for 1 year.	Principal.		
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
posit of 2s. per acre.............	4 0 0	......	4 0 0	36 0 0	......
talment of 1s. per acre at end of 3rd year ...	2 0 0	......	2 0 0	34 0 0	......
,, 4th ,, ...	2 0 0	1 7 2	0 12 10	33 7 2	34 0 0
,, 5th ,, ...	2 0 0	1 6 9	0 13 3	32 13 11	33 7 2
,, 6th ,, ...	2 0 0	1 6 2	0 13 10	32 0 1	32 13 11
,, 7th ,, ...	2 0 0	1 5 7	0 14 5	31 5 8	32 0 1
,, 8th ,, ...	2 0 0	1 5 0	0 15 0	30 10 8	31 5 8
,, 9th ,, ...	2 0 0	1 4 5	0 15 7	29 15 1	30 10 8
,, 10th ,, ...	2 0 0	1 3 10	0 16 2	28 18 11	29 15 1
,, 11th ,, ...	2 0 0	1 3 2	0 16 10	28 2 1	28 18 11
,, 12th ,, ...	2 0 0	1 2 5	0 17 7	27 4 6	28 2 1
,, 13th ,, ...	2 0 0	1 1 10	0 18 2	26 6 4	27 4 6
,, 14th ,, ..	2 0 0	1 1 1	0 18 11	25 7 5	26 6 4
,, 15th ,, ...	2 0 0	1 0 3	0 19 9	24 7 8	25 7 5
,, 16th ,, ...	2 0 0	0 19 6	1 0 6	23 7 2	24 7 8
,, 17th ,, ...	2 0 0	0 18 8	1 1 4	22 5 10	23 7 2
,, 18th ,, ...	2 0 0	0 17 10	1 2 2	21 3 8	22 5 10
,, 19th ,, ...	2 0 0	0 17 0	1 3 0	20 0 8	21 3 8
,, 20th ,, ...	2 0 0	0 16 0	1 4 0	18 16 8	20 0 8
,, 21st ,, ...	2 0 0	0 15 1	1 4 11	17 11 9	18 16 8
,, 22nd ,, ...	2 0 0	0 14 1	1 5 11	16 5 10	17 11 9
,, 23rd ,, ...	2 0 0	0 13 0	1 7 0	14 18 10	16 5 10
,, 24th ,, ...	2 0 0	0 12 0	1 8 0	13 10 10	14 18 10
,, 25th ,, ...	2 0 0	0 10 10	1 9 2	12 1 8	13 10 10
,, 26th ,, ...	2 0 0	0 9 7	1 10 5	10 11 3	12 1 8
,, 27th ,, ...	2 0 0	0 8 6	1 11 6	8 19 9	10 11 3
,, 28th ,, ..	2 0 0	0 7 2	1 12 10	7 6 11	8 19 9
,, 29th ,, ...	2 0 0	0 5 11	1 14 1	5 12 10	7 6 11
,, 30th ,, ...	2 0 0	0 4 6	1 15 6	3 17 4	5 12 10
,, 31st ,, ...	2 0 0	0 4 1	1 15 11	2 0 5	3 17 4
,, 32nd ,, ...	2 0 0	0 1 7	1 18 5	0 2 0	2 0 5
Final payment......................	0 3 0	......	0 3 0	......	......
Total	64 3 0	24 3 0	40 0 0	......	......

In the course of the year 1896, however, an Act was passed for the ief of holders of conditional purchasers who found the ordinary rate payment too burdensome. Under this Act the Minister for Lands is given power to reduce the annual instalment of 1s. per acre to 9d. or even 6d. per acre, always provided that under the reduced rate the balance of purchase money with the interest thereon will be extinguished within sixty-six years from the date when the first instalment after payment of the deposit became due. The conditional purchase in respect of which relief is requested must form part of the holding on which the applicant resides, unless the Minister is satisfied that the applicant holds the land *bona fide* for his own use, and is not able to make payment at the original rate, and is not the holder of a greater area than is necessary for the maintenance of a family.

Non-residential Conditional Purchases.—Any person of or over the age of 21, who has never taken up an ordinary residential conditional purchase, may take up a non-residential conditional purchase in either the Eastern or the Central Land Division. The maximum area is 320 acres, and the conditions are the same in both divisions. The price per acre, and the amount of the deposit and of the instalments, are double those fixed for an ordinary residential conditional purchase, but the scale of survey fees is the same. This form of selection does not entitle the purchaser to hold a conditional lease. The land must be fenced in within twelve months from the date of confirmation; and within five years from that date the holder must satisfy the Board that permanent improvements (not including the boundary fencing) have been made to the value of £1 per acre. If the substitution of other improvements in lieu of fencing be obtained in connection with a non-residential conditional purchase, the sum expended must be at the rate of 30s. per acre. The only addition which a holder can make to his purchase is by increasing it to the maximum area.

Conditional Purchases within Special Areas.—Special areas may be reserved from the operations of the ordinary conditional purchase clauses of the Act, and thrown open to selection under different terms as to payment, with or without the condition of residence; but in such special areas the price of the land cannot be less than £1 10s. per acre if the selector elect to fulfil the condition of residence, while a non-resident purchaser is charged double that price. The maximum and minimum areas that may be selected within special areas are always specified in the proclamation throwing the lands open, but the maximum cannot exceed 320 acres in the Eastern Division, nor 640 acres in the Central and Western Divisions. The deposit required is also stated in the proclamation, being generally one-tenth of the price, and the instalments are one half the amount of the deposit. As in the case of ordinary conditional purchases, the Relief Act of 1896 has given the Minister for Lands power to reduce the rate of instalments previously payable to three-quarters or one-half. The conditions to be fulfilled are similar to those of the ordinary residential and non-residential conditional purchases. Conditional leases of ordinary land can be taken up by virtue of conditional purchases within special areas, but only in the Central Division.

The following is the scale of survey fees for conditional purchases of any description :—

Area.	For an Original Conditional Purchase.			For an Additional Conditional Purchase or Conditional Lease.		
	£	s.	d.	£	s.	d.
For any area not exceeding 4 acres.	1	0	0	0	15	0
For every additional acre, or fraction of an acre, up to 10 acres	0	3	4	0	2	6
For 10 acres	2	0	0	1	10	0
For every additional acre, or fraction of an acre, up to 20 acres	0	2	0	0	1	6
For 20 acres	3	0	0	2	5	0
For every additional acre, or fraction of an acre, up to 40 acres	0	1	0	0	0	9
For 40 acres	4	0	0	3	0	0
For every additional 5 acres, or fraction of 5 acres, up to 80 acres	0	2	6	0	1	10½
For 80 acres	5	0	0	3	15	0
For every additional 10 acres, or fraction of 10 acres, up to 320 acres	0	2	6	0	1	10½
For 320 acres	8	0	0	6	0	0
For every additional 15 acres, or fraction of 15 acres, up to 640 acres	0	2	6	0	1	10½
For 640 acres	10	15	0	8	1	3
For every additional 20 acres, or fraction of 20 acres, up to 1,280 acres	0	2	6	0	1	10½
For 1,280 acres	14	15	0	11	1	3
For every additional 40 acres, or fraction of 40 acres, up to 2,560 acres	0	2	6	0	1	10½
For 2,560 acres	18	15	0	14	1	3

Conditional purchases and conditional leases may be converted into homestead selections, on terms stated under the latter heading.

Auction Sales.—Crown lands may be submitted for sale by auction in each Land Division, but not more than 200,000 acres can be thus alienated in any one year. The area of town lots is limited to half-an-acre each, and the upset price cannot be less than £8 per acre; suburban lots cannot be sold in areas exceeding 20 acres, or at a lower upset price than £2 10s. per acre; country lots cannot exceed 640 acres, and the minimum upset price is 25s. per acre. Under ordinary auction sales the payment must be completed within three months, but arrangements may be made under a system of deferred payments, the minimum prices, however, not being less than those given above. In every case a deposit of 25 per cent. must be paid, and the payments cannot extend over a longer period than five years. Deferred payments bear interest at the rate of 5 per cent. per annum.

Improvement Purchases.—Persons who, by virtue of a miner's right or business license issued under the Mining Act, are in authorized occupation of and residing on land within a proclaimed gold-field may, in consideration of improvements made thereon, apply to the Local Land Agent for permission to purchase the land without competition at a price to be fixed by the Land Board. The area, however, is limited to 1 rood of town land and 1 acre of other land, and a distance of 3 miles must separate any two or more portions purchased by the same applicant.

Special Purchases.—Reclaimed lands, unnecessary roads, water frontages, land to which no way of access is obtainable, land insufficient in area for conditional purchase, and other areas of a similar nature, may be sold to the holder of the adjacent property without competition, and in all such cases the price is fixed by the Land Board.

Volunteer Land Orders.—Any person who was enrolled as a volunteer between the years 1868 and 1875, and underwent five years' continuous training, is entitled to a free grant of 50 acres open for conditional purchase; but this form of alienation is now virtually extinct, only ten grants being made in 1893, none during 1894 and 1895, and one grant during 1896. The orders are transferable.

Exchanges.—Under the 46th section of the Act of 1889, and section 47 Act of 1895, provision is made for the surrender of land in certain cases in exchange for land of equal value, and without any monetary consideration.

Homestead Selections.—The acquisition of land in this manner is a feature of the Crown Lands Act of 1895, and a distinct departure from old forms. Tracts of land are surveyed and valued, and all particulars are notified in the *Government Gazette* and a local newspaper. For a period of forty days after being gazetted, these areas remain open for additional conditional purchase by holders residing on adjacent conditional purchases. Any person of or over 16 years of age, and possessing the usual legal qualifications, is entitled to apply for a homestead selection. The area that may be selected is fixed according to the capabilities of the land; but in no case can it exceed 1,280 acres, and the selector is bound to take the block he applies for as it is gazetted—he cannot take a portion only. The tenure is freehold, subject to rent and residence in perpetuity. At the time of application six months' rent is required. The survey fee is on the same scale as that fixed for conditional purchases, one-third being payable on application, one-third at the end of twelve months, and one-third at the end of the second year. Until the grant is issued the rental is 3d. in the £ (or 1¼ per cent. on the capital value of the land); after the issue of the grant the rent is 6d. in the £ (or 2½ per cent.) The original valuation stands for fifteen years, after which a fresh appraisement is made every ten years. The only condition required by the Crown by way of improvement is the erection of a dwelling-house of the value of £20, and residence must commence within three months from the date on which the application is confirmed. The house must be erected within eighteen months, and afterwards maintained in good order. The obligation of perpetual residence is a provision made to ensure the land being used for the purpose intended, and as a guard against monopoly; nevertheless, under certain circumstances the condition of residence may be relaxed. The interest of a holder is liable to be forfeited for non-fulfilment of conditions or non-payment of rent. After five years the holding may be transferred, but the condition as to residence attaches to each successive transferree. Tenant right in improvements is given if the selection is surrendered or forfeited. Any improvements which may be on the land when it is selected must be paid for at their appraised value in four equal yearly instalments, with interest at the rate of 4 per cent. per annum.

If a number of homestead selectors desire to form a village adjacent to their holdings, the condition as to residence on the holdings may be dispensed with at the discretion of the Governor, and residence in such village or settlement substituted, subject to such conditions as may be prescribed.

The homestead selector may avail himself of the privilege of protecting his holding, so that it cannot be sold under a writ of execution or taken from him in the case of insolvency, but to effect this protection the selector must be solvent at the time when he applies for registration. Should a holder be compelled by adverse circumstances to abandon his selection, a certificate to that effect may be obtained, qualifying him to apply for another selection.

In the case of persons desirous of making a home on the land, but who for a time are debarred by their present calling or other circumstances from taking up their residence thereon, provision is made for residence by a deputy, who must be approved, however, by the Local Land Board, and the applicant must satisfy the Board that it is his intention subsequently to reside on the land. The following special conditions are imposed in such cases:—(1) The full amount of survey fee must be paid at the date of application; (2) the rent chargeable before the issue of the grant is 3½ per cent. of the capital value; (3) the value of the dwelling erected must be £40; and (4) within three years one-tenth of the area must be in full tillage, and during the fourth and fifth years this area must be increased to one-fifth.

Conditional purchases and conditional leases may be converted into homestead selections, the rent chargeable being at the rate of 2½ per cent. on the capital value, which, under the Conditional Purchasers Relief Act of 1896, shall for the first ten years be taken at £1 per acre for a conditional purchase not within a special area; at the original price for a conditional purchase within a special area; and for a conditional lease, at a sum obtained by capitalising the annual rent of such lease on a 2½ per cent. basis. Such part of the payments made towards a conditional purchase as may have been applied to the reduction of the principal sum, and not taken to defray interest charges on the outstanding balance, is credited to the holder as rent of the homestead selection from the time of conversion.

The inducement offered to persons of slender means by this system, and the advantages which the homestead selector has compared with the holder of a conditional purchase, are very apparent. For instance, the amount payable during the first year on a homestead selection of 640 acres, valued at £1 per acre, is only £10 13s. 9d., while in the case of a conditional purchase, the same area would entail an expenditure of £74 15s. The improvements which have to be effected under a conditional purchase are not required on a homestead selection, and the land of the homestead selector, as has been stated, cannot be taken from him under any legal process. From the eagerness with which the areas already offered have been taken up, there is no doubt that this form of acquiring land will be largely availed of.

Conditional Leases.—Crown lands open to ordinary conditional purchase in the Eastern and Central Land Divisions are available for conditional lease in connection with residential conditional purchases, excepting those within special areas in the Eastern and Western Divisions. The area of any conditional lease cannot exceed three times that of the conditional purchase or purchases in right of which it is applied for, and cannot be less than 40 acres; nor can the combined area of the purchase and lease exceed 1,280 acres in the Eastern Division, or 2,560 acres in the Central Division. The land applied for must also adjoin the conditional purchase by virtue of which it is granted. The lease has a term of twenty-eight years, and pending appraisement a provisional rent of 2d. per acre is payable annually. The first appraisement made by the Land Board stands for fifteen years, and for the remaining period the land is subject to a reappraisement.

As conditional purchases other than within special areas cannot, under existing legislation, be taken up in the Western Division, no conditional leases are obtainable there. The conditional leases current in this division were pre-emptive leases converted under the provisions of the Land Act of 1884.

At any time during its currency a conditional lease or any portion of it adjoining the previous series may be converted into an additional conditional purchase, and as this right is almost invariably availed of the land held under conditional lease may practically be considered as alienated.

Settlement Leases for Agriculture and Grazing.—These areas, like homestead selections, are specially set apart by notification in the *Government Gazette*. The land is measured, and each portion is valued according to its capabilities and situation. Areas set apart for agricultural purposes cannot exceed 1,280 acres, but for grazing purposes the maximum is 10,240 acres. The term of a lease is twenty-eight years, and the annual rent is 1¼ per cent. on the capital value. Six months' rent, together with the prescribed survey fee, must accompany the application. The appraised value of improvements on the land when taken up, with interest at 4 per cent. per annum, may be paid in three equal yearly instalments. The conditions are continuous residence during the term of the lease, and the enclosing of the holding within five years from the issue of the lease; the lessee is also required to conform to any regulations made regarding noxious animals and the clearing of scrub, and such other provisions as may be deemed expedient in the public interest. The lease cannot be assigned or sub-let without the consent of the Minister. During the last year of the term the lessee may apply for that part of the lease on which his residence stands as a homestead selection, the area not to exceed 1,280 acres.

The following is the scale of survey fees for settlement leases. In any case where the cost of survey proves to be less than the scale rates, the difference may be refunded:—

	£	s.	d.
Up to 2,560 acres, as for an original conditional purchase (*see* page 253.)			
For 2,560 acres	18	15	0
For every additional 40 acres up to 3,840 acres, 2s. 6d.			
For 3,840 acres	22	15	0
For every additional 40 acres up to 5,760 acres, 2s.			
For 5,760 acres	27	11	0
For every additional 40 acres up to 7,680 acres, 1s. 6d.			
For 7,680 acres	31	3	0
For every additional 40 acres up to 10,240 acres, 1s.			
For 10,240 acres	34	7	0

Improvement Leases.—This form of lease, like settlement leases and homestead selections, is an introduction of the Crown Lands Act of 1895. The lands which may be taken up are comprised of scrub and inferior land in any division. They are disposed of either by auction or tender and in no case can the area of a lease exceed 20,480 acres. The term of a lease is twenty-eight years; the rent is the amount bid at auction or accepted by tender, but an upset price may be fixed, and the Governor is not bound to accept any tender. The provisions made for the improvement of the land vary according to the circumstances of each case, and the last holder has tenant-right in improvements. Residence on the land is not compulsory; but if the lessee resides thereon he may, during the last year of the term, make application to convert the residential portion into a homestead selection; but the area cannot exceed 640 acres, and must carry improvements to the value of £1 per acre.

Pastoral Leases.—The largest areas taken up for pastoral purposes are held under this form of lease. Under the Act of 1884 the large holdings of the squatters were each divided into two portions, called respectively the resumed area and the leasehold area. The resumed area was leased under occupation license, renewable annually, but the land remained open for selection under conditional purchase and conditional lease. The leasehold area was returned to the lessee, who was entitled to hold it for a fixed term of years, varying in each Land Division. In the Eastern Division the pastoral leases expired in 1890, and they cannot now be renewed, nor can fresh areas be leased. In the Central Division pastoral leases terminated in 1895, but in accordance with the privilege granted under the Act of 1889, a great number of the leases have been extended for short periods, varying from one to five years. Provision has, however, been made in connection with these renewals for the withdrawal of such portions as may be required under other forms of settlement. After due inquiry by the Land Board, the Minister can authorise the division of the area into two parts as nearly equal as is practicable, and the portion from which withdrawals may be made is subsequently defined. By way of compensation for such withdrawals, a further extension of time is given for the remainder of the lease.

The pastoral leases in the Western Division were, under the Act of 1884, given a currency of fifteen years, which was increased to twenty-one years by the Act of 1889, and by the Crown Lands Act of 1895 the term was further extended to twenty-eight years, calculated from the commencement of the lease. The rent of each lease varies with the appraised value of the land, and lessees have tenant-right in improvements. The resumed area may be amalgamated with the leasehold area in cases in which the Local Land Board, after inquiry, is satisfied that such resumed area is not required and is not likely to be required for settlement before the expiration of the pastoral lease. Withdrawals of portions of the pastoral leases for settlement purposes may be made in the Western Land Division as in the Central; but the maximum area which can be withdrawn is limited to one-eighth of the leasehold, and the land must not be more than 10 miles distant from the boundary of a town containing at least fifty inhabitants.

Occupation Licenses.—Land held under occupation license consists mostly of the resumed areas of pastoral holdings divided by the Act of 1884, and the expired leases of the Eastern and Central Divisions. Land withdrawn from pastoral lease for settlement in the Central and Western Divisions may also be held under occupation license. A pastoral lessee in the Central Division has a preferential right to an occupation license of any area formerly held by him under pastoral lease, and in both the Central and Western Divisions this privilege extends to land withdrawn from the existing lease for settlement purposes. The license is annual, covering the calendar year, and the fee is payable at the time of granting or renewing the license. Under an amending Act, passed in 1896, land held under occupation license may be withdrawn from the holder on receipt of an application for such land as a homestead selection, or under settlement lease, provided the holder of the occupation license is informed of the application by the Land Agent within one week of its receipt.

Artesian Well Leases.—Holders of occupation licenses or annual leases may take up artesian well leases. Only one such area may be leased out of each 64,000 acres held under occupation license, and not more than three areas out of the same occupation license, the total extent of an artesian well lease being limited to 10,240 acres.

Homestead Leases.—This form of lease is granted for the resumed areas or the vacant lands of the Western Division only; lands held under annual lease or occupation license are, therefore, open to homestead lease. The minimum area obtainable is 2,560 acres, and the maximum, 10,240 acres. If the maximum area is not taken up in the first instance, additions may be made until that area is reached, but these additions may not consist of less than 2,560 acres, except in certain cases, when the minimum additional area may be 640 acres. Additional leases terminate on the same date as the original lease, and have consequently a shorter term. The term of lease is twenty-eight years, and the rent is appraised every seven years. A deposit of 1d. per acre, with £10 on account of survey fee, is required on making the application. Within sixty days from the date on which the lease is gazetted the balance of the cost of survey is due; and the rental is payable annually in advance. Continuous residence for six months in each year for the first five years is required. Residence must commence within ninety days from the approval of the lease; but the lessee may, at his own risk, enter into occupation immediately after making application. The date of commencing the six months' residence in any year must be previously notified to the Local Land Board. The boundaries of the land must be enclosed within two years from approval of the lease with such a fence as the Board may prescribe; upon satisfactory cause being shown, however, a suspension of the conditions as to residence and fencing may be obtained, and an extension of time granted. The Local Board is empowered to make inquiry as to whether the conditions have been adhered to by the lessee, and the lease is liable to forfeiture in the event of their non-fulfilment. Arrangements for the sub-letting of homestead leases are required to be in writing, and a certified copy of the document sent to the Chairman of the Local Land Board, any disregard of this regulation being taken as evidence that the lease is not held in good faith. After the conditions as to residence are fulfilled the lease is transferable. The portion of the lease on which the lessee has his dwelling may, during the last year of the term, be applied for as a homestead selection.

Annual Leases.—Crown lands which are not held under other forms of lease, and are not exempt from lease, may be let on annual lease in any Land Division by auction or tender, or upon application, in areas not exceeding 1,920 acres; and lands reserved from sale are not withheld from annual lease. The minimum rental cannot be less than £2 for every 640 acres or lesser area. An original lease dates from the first day of the month following its notification in the *Gazette*, or if the land has been leased at auction, the first day of the month following the date of sale; but the first year expires on the 31st December, rent being charged only for the number of months during which the leasehold has been occupied, so that all renewals of leases cover the calendar year. Improved lands let on annual lease are subject to an additional rent for the use of improvements, and where the improvements do not belong to the Crown an agreement has to be come to by the parties concerned, failing which an appraisement is made by the Land Board. The improvements must be of a fixed and substantial character and necessary for the occupation of the land, and before valuation the owner may, with the permission of the Board take away such as are of a removable nature. Under the Crown Lands (Homestead Selections and Settlement Leases) Act of 1896 (59 Vic. No. 26) land held under annual lease is withdrawn by application for such land as a homestead selection or under settlement lease, but the Land Agent must notify the holder of the annual lease within one week of the receipt of the application.

Scrub Leases.—Lands, whether vacant or otherwise, wholly or partly covered with scrub or noxious undergrowth may, upon the recommendation of the Local Land Board in any district, be declared scrub lands, and after notification in the *Government Gazette*, may be leased by auction or tender, or upon application, for such periods, not exceeding twenty-one years, as the Minister may deem expedient. Under the Crown Lands Act of 1895, however, the leases of scrub and inferior lands may, upon application, be extended by the Governor to twenty-eight years, the term allowed for improvement leases. Until they are leased in this form, scrub lands cannot be withdrawn from any lease or license under which they may be held; and if the lands form part of a homestead or a pastoral lease, the scrub lease can only be granted to the homestead or the pastoral lessee; but a homestead or a pastoral lessee cannot take up a scrub lease outside his own holding, and the term of his scrub lease expires with that of his homestead or pastoral lease. During the whole currency of a scrub lease, the land cannot be made available for purchase or other form of lease. The conditions are that the holder shall take such steps for the destruction of the scrub and noxious growth as the Board may direct, and shall afterwards keep the land free from such growth. These operations must be commenced within three months from the date of the lease, and in case of non-fulfilment of conditions or non-payment of rent the lease is liable to be cancelled and all improvements forfeited to the Crown.

Leases of Inferior Lands.—Vacant lands of an inferior character or in isolated positions, and which have not been held under any form of tenure or have been abandoned, may be offered for lease by notification in the *Government Gazette*. Within thirty days after this notice has been given the land may be leased by auction or by tender, subject to the conditions specified in the *Gazette*, the upset rental being fixed by the Minister on the report of the Local Land Board. A lease of any such land which has been put up at auction may upon application be obtained at the upset rental. The term of lease is twenty years or under; but the Governor has power, under the Crown Lands Act of 1895, to extend the time to twenty-eight years.

Snow-land Leases.—Vacant lands, or lands held under annual lease or occupation license, which are usually covered with snow during a part of each year and are unfit for continuous use or occupation, may, on the recommendation of the Land Board, be submitted by the Minister for lease by auction. The minimum area which can be thus leased is 1,280 acres, and the maximum area, 10,240 acres. The first year's rent, together with the survey fee, is due at the time of sale.

The period of lease is seven years; but on application not later than twelve months before the expiration of that time, an extension of three years may be granted, subject to re-appraisement of rental, notice of which is given twelve months prior to the expiration of the lease. No person can hold more than two areas under snow-land lease.

Residential leases on Gold and Mineral Fields.—Any holder of a miner's right or mineral license is entitled to apply for a residential lease of vacant lands not exceeding 20 acres in extent, within any proclaimed gold or mineral field. Applications must be accompanied by a deposit of £1, the prescribed survey fee, and a provisional rent at the rate of 1s. per acre or part of an acre. The lease may be granted for any term not exceeding fifteen years, and is held subject to the following conditions:—The lessee must, during the whole currency of the lease, hold a miner's right or mineral license. He must make the leasehold his usual and only home, and residence must commence within three months from the date of notification of the lease. Within twelve months he must, if such improvements are not already existing, erect such buildings and fences as are required for the actual residence upon and the beneficial use of the land. Any portion of the land which in the opinion of the Minister is required for mining or public purposes, may be withdrawn from the lease. Any duly authorised person may enter on the land for the purpose of seeking work or winning gold or other mineral, and the residential lease confers on the holder no right to do this himself—he must procure the necessary authority before he may do so. Other conditions which may be imposed are specified in the notification. On the expiration or withdrawal of the lease the lessee has tenant-right in improvements.

COST OF ADMINISTRATION.

The following statement shows the cost of the administration of the Lands Department during the period from 1886 to the 30th June, 1897:—

Year.	Cost of Survey of Lands.	Expenditure for General, Miscellaneous, and Special Services.	Total Cost of Administration.
	£	£	£
1886	378,085	172,167	550,252
1887	299,370	180,011	479,381
1888	248,661	205,747	454,408
1889	223,059	243,378	466,437
1890	224,096	174,284	398,380
1891	232,672	170,495	403,167
1892	209,735	200,859	410,594
1893	180,325	181,135	361,460
1894	155,184	163,145	318,329
*1895	73,770	86,659	160,429
1895-6	155,595	163,108	318,703
1896-7	69,250	230,096	299,346

* To 30th June.

The figures just given might prove misleading without some referen to the actual revenue received. In the chapter on "Public Financ will be found a statement of the revenue from the Crown lands of t colony, and if from the figures there given be subtracted the recei from mining occupation and the balance compared with the cost sho in the table just given, the following results will be obtained :—

Year.	Percentage of Total Revenue Expended—		
	On Survey.	On General Expenses.	Total.
1886	24·48	11·15	35·63
1887	12·89	7·77	20·66
1888	11·24	9·30	20·54
1889	10·87	11·86	22·73
1890	10·36	8·06	18·42
1891	10·99	8·05	19·04
1892	10·12	9·76	19·95
1893	8·52	8·56	17·08
1894	7·46	7·84	15·30
*1895	7·09	8·33	15·42
1895–6	7·86	8·24	16·10
1896–7	3·64	12·12	15·76

*To 30th June.

The figures just given show a notable improvement. It must, ho ever, be borne in mind that the expenditure on surveying is added some instances to the cost of the land, and is therefore not altogethe fair charge against administration.

PROGRESS OF ALIENATION.

The growth of land alienation under the legislation of 1861 and subsequent amendments, and the operations of the settlers under t Acts of 1884, 1889, and 1895 in the matter of unconditional settleme are summarised below :—

Mode of Alienation.	Lots.	Area.
Sales by auction—	No.	acres.
Town	35,002	16,675
Suburban	13,770	67,364
Country	62,134	9,222,558
Total sales by auction	110,906	9,306,597
Selection after auction	16,628	1,719,581
Sales by virtue of improvements	24,340	2,786,611
,, by virtue of pre-emptive rights	2,114	560,825
,, of unnecessary roads	991	7,923
,, of water reservations	208	649
, by special appraisements	270	2,284
of reclaimed lands	591	942
Grand total of unconditional sales	156,048	14,385,412

As regards conditional sales, the following were applied for under the various Acts since the date of the Crown Lands Act of 1861 :—

			Selections applied for.	
			No.	Acres.
Under the Crown Lands Act of 1861—				
To May 24, 1880			136,389	14,982,120
Under the Crown Lands Act of 1880—				
	No.	Acres.		
1880 (from May 25)	4,927	694,951		
1881	14,220	2,329,202		
1882	14,606	2,392,218		
1883	10,674	1,617,712		
1884	10,657	1,453,937		
Total			55,084	8,488,020
Total to December 31, 1884			191,473	23,470,140
Under the Crown Lands Acts of 1884, 1889, and 1895,—				
	No.	Acres.		
1885	5,377	1,165,352		
1886	6,080	963,197		
1887	4,769	793,004		
1888	5,364	865,199		
1889	6,205	903,160		
1890	8,526	1,713,577		
1891	6,154	1,303,414		
1892	4,396	816,399		
1893	3,393	533,805		
1894	2,617	414,355		
1895	1,751	253,431		
1896	1,279	199,450		
Total			55,911	9,924,343
Grand total to December 31, 1896			247,384	33,394,483

The number of selections cancelled, forfeited, lapsed, declared void, and converted into homestead selections, together with the balance of such voidances, etc., and that of increased over decreased areas, amounted to 76,441 conditional purchases, covering 10,408,606 acres, thus reducing to 170,943 lots and 22,985,877 acres the number and area of selections which remained in existence at the close of the year 1896. Deeds have now issued upon 23,260 completed purchases, covering 2,773,065 acres, so that the number of purchases still standing good, but upon which the conditions have not been fulfilled, is 147,683, covering an area of 20,212,812 acres.

Under the Crown Lands Act of 1895, applications for 1,389 blocks were received to the end of 1896 for homestead selections, the aggregate area applied for being 425,450 acres. Of the applications lodged 275, covering 108,403 acres, were disallowed, while 1,100, amounting to 334,843 acres, were confirmed. Applications in respect of 250 blocks were awaiting consideration at the close of 1896. In addition to the foregoing, there were 44 conversions of conditional purchases, of a total area of 5,547 acres.

In addition to the alienation of land by conditional and uncondition sales, the following were granted under the Volunteer Land Regulatio of 1867 :—

Year.	Area of Volunteer Land Orders granted.	Year.	Area of Volunteer Land Orders granted.
	acres.		acres.
1871	6,049	1885	1,936
1872	7,317	1886	740
1873	2,880	1887	1,797
1874	7,756	1888	1,433
1875	14,498	1889	783
1876	18,758	1890	882
1877	14,079	1891	1,100
1878	13,022	1892	590
1879	26,506	1893	500
1880	18,886	1894	Nil.
1881	13,876	1895	Nil.
1882	5,649	1896	50
1883	4,358		
1884	4,500	Total	167,945

The following table shows the area of land granted for general an religious purposes from 1862 to 1896 :—

Year.	Area of Grants.	Year.	Area of Grants.	Year.	Area of Grants
	acres.		acres.		acres.
1862	857	1874	6,626	1886	11,100
1863	808	1875	673	1887	5,377
1864	301	1876	5,557	1888	3,310
1865	2,855	1877	2,899	1889	1,902
1866	12,288	1878	1,811	1890	1,566
1867	13,935	1879	21,762	1891	916
1868	11,310	1880	20,637	1892	8,735
1869	3,672	1881	7,113	1893	5,833
1870	11,970	1882	1,969	1894	41,678
1871	4,319	1883	2,535	1895	7,590
1872	1,969	1884	6,626	1896	3,186
1873	2,535	1885	481	Total	236,701

The operations of the various Orders, Regulations, and Acts of Council and of Parliament for the disposal of the public lands, since the foundation of the colony, have given the following results:—

	Acres.
Area granted and sold by private tender and public auction at prices ranging from 5s. to 20s. per acre, prior to the year 1862	7,146,579
Area unconditionally sold, 1862–1896 inclusive	14,388,649
Area conditionally sold, for which deeds have issued, 1862–96 inclusive	2,773,065
Area granted under Volunteer Land Regulations of 1867 to 31st December, 1896	167,945
Area granted for public purposes, 1862–96	236,701
Total area covered by deeds or dedication	24,712,939
Area in process of alienation under system of deferred payments standing good on 31st December, 1896	20,212,812
Area in process of alienation under system of homestead selection	324,843
Area of conditional purchases converted into homestead selections	6,874
Total alienated or in process of alienation	45,257,468

It has been found impracticable to separate the area alienated by grant from that sold by private tender, as the records of early years are incomplete upon this point.

The following statement shows the amount paid for lands purchased from the State from the year 1821 to the end of 1896:—

Period.	Amount received.
	£
1821–1861	3,785,002
1862–1871	2,359,548
1872–1881	17,015,358
1882–1891	13,917,457
1892–1897*	6,968,828
Total received...	44,046,193
Less refunds	1,412,686
Net amount received ...£	42,633,507

* To 30th June.

This includes £20,449,833 paid on account of conditional purchases. The amount outstanding on conditional purchases at the end of 1896 was £12,381,760, making the total amount paid and owing on all lands sold £55,015,267.

The area leased to pastoral tenants and others at the end of 1896 comprised 126,307,790 acres (including leases to miners under the Mining Act) and was subdivided as follows:—

	Acres.
Pastoral Leases	52,706,670
Occupation Licenses	40,210,241
Conditional Leases	13,260,052
Homestead Leases	10,429,261
Annual Leases	5,873,263
Other Leases	3,731,272
Leases under the Mining Act	97,031
Total	126,307,790

The total available area of the colony is 195,882,150 acres, and deducting the area sold and otherwise alienated, 45,257,468 acres, and the area leased 126,307,790 acres, making a total of 171,565,258 acres, there remained a balance of 24,316,892 acres, representing the area of country neither alienated nor leased, including roads, unoccupied reserves, and land unsuitable for settlement.

AREA AVAILABLE FOR SETTLEMENT.

In 1895 attention was again directed to the question of land legislation, as it was rightly contended that the Lands Acts of 1884 and 1889 had failed to prevent the accumulation of enormous landed estates in the hands of a very limited number of proprietors, backed up by the great financial institutions of the country. Although it may be said in defence of the policy pursued by this class of landowners, that in many cases it was forced upon them by the defective nature of legislation, which failed to discriminate between the very different interests of the pastoralists and the agricultural settlers, it must nevertheless have been patent to everybody that the rate at which these immense alienations of the public estate were being carried on threatened in a very short period of time to place formidable obstacles in the path of healthy settlement. The Acts mentioned have now, however, been superseded by the Crown Lands Act of 1895, which came into operation on the 1st June of that year. As has already been shown, many radical changes in land legislation have been effected by this Act; but it must be borne in mind that immediate remedial action can only be taken in connection with that portion of the Crown lands which has not yet been alienated, or leased to Crown tenants for a definite period of years. Leases granted under certain conditions, such as those attached to conditional leases, which carry with them the right of purchase at any time during their currency, may be considered to be in effect a form of alienation, as but a comparatively small portion of these areas is ever likely to return to the public estate. Lands under homestead lease in the Western Division, scrub lands, snow-covered areas, and inferior lands leased for long periods of fixed tenure, as well as pastoral leases renewable for long terms, form another category of lands upon which past legislation lays a prescriptive claim. The area which can be beneficially affected by the Act of 1895 is, therefore, limited to the area which is unalienated, or for which contracts have not been entered into, further reduced by the excision of reserves for public purposes, for goldfields and other forms of mining enterprise, and for railways and other purposes. At the close of 1896 there were 24,712,939 acres absolutely alienated, for which deeds had issued; 20,212,812 acres conditionally sold, the conditions of purchase not being complete; 324,843 acres alienated and in process of alienation under the system of homestead selection, subject to the payment of rent in perpetuity; 6,874 acres of conditional purchases converted into homestead selections; and 13,260,052 acres leased with the right to purchase; in all, 58,517,520 acres which have been placed entirely beyond the scope of present or future legislation.

The areas under long contracts of lease, in some cases with right of renewal, which no legislation can affect until the expiration of the fixed period of their tenure, are given below :—

	Acres.
Homestead Leases in Western Division for 28 years	10,429,261
Scrub Leases for 21 years, with right of renewal for a further period of 7 years	215,455
Snow Leases for 7 years, with right of renewal for a further period of 3 years	112,670
Leases of inferior lands, etc., for 20 years, with right of renewal for a further period of 8 years	364,336
Pastoral Leases in Western Division for 28 years	38,645,789
Other Leases	2,880,386
Total	52,647,897

The entire area affected by contracts existing at the end of 1896 amounted therefore to 111,165,417 acres, and these figures show how greatly the extent of territory to which remedial legislation is applicable has diminished. Of the balance, amounting to 84,716,733 acres, a large portion comprises reserves of various kinds; and if allowance be made for mountainous and other sterile lands, it will probably be found that the area suitable for occupation which the State has to offer intending settlers is somewhere about 62,000,000 acres. A further reduction must be made in order to arrive at the area available for immediate occupation, as in the Central Division a very large area has been renewed for various short periods in accordance with the privilege granted under the Crown Lands Act of 1884. In the course of the year 1896 an area covering 692,844 acres became available for settlement, and during the next eight years leases for the following areas will also expire as noted:—

Year.	Acres.	Year.	Acres.
1897	1,226,315	1902	135,782
1898	1,338,559	1903	17,111
1899	998,002	1904	54,345
1900	10,034,304		
1901	46,053	Total	13,850,471

Including the area which fell in during 1897 (1,226,315 acres), and making allowance for the fact that under the Act of 1895 half of these leaseholds may be withdrawn to meet the requirements of settlement as they arise, the total extent of country open to the immediate influence of legislation is limited, therefore, to but little more than 54,000,000 acres. From a careful computation the area estimated to be immediately available would appear to be distributed in the following proportions within the three great divisions of New South Wales:—

	Acres.
Eastern Division	13,000,000
Central ,,	21,000,000
Western ,,	20,000,000

Under present conditions the Western Division is not suitable for agricultural settlement, and the area, therefore, left open to the operations of the small settler combining agriculture with pastoral pursuits does not exceed 34,000,000 acres, or about one-sixth of the territory of New South Wales.

The progress of alienation and conditional settlement by purchase and lease at various periods from 1861 to 1884, and annually since the last-mentioned year, is shown in the following table:—

At end of year.	Area Alienated for which deeds have issued.	Area Conditionally Purchased, standing good on 31st December.	Area Conditionally Leased on 31st December.	Area under Homestead Selection.
	acres.	acres.	acres.	acres.
1861	7,146,579	....	....	....
1871	8,630,604	2,280,000	....	....
1881	22,406,746	12,875,392	....	....
1884	22,779,733	16,158,588	....	....
1885	22,872,366	16,554,900	1,900,800	....
1886	22,991,208	16,945,579	3,955,200	....
1887	23,106,700	17,262,567	4,802,560	....
1888	23,259,048	17,499,655	6,121,600	....
1889	23,442,013	17,920,002	6,928,804	....
1890	23,615,720	19,048,085	9,903,949	....
1891	23,775,410	19,805,892	11,234,131	....
1892	23,937,392	20,115,467	14,370,803	....
1893	24,138,576	20,214,361	12,707,423	....
1894	24,358,717	20,316,605	12,870,191	....
1895	24,566,945	20,266,061	12,953,203	57,331
1896	24,712,939	20,212,812	13,260,052	331,717

As already pointed out, the land held under conditional lease is virtually alienated, seeing that the holder has the right of converting his lease into a freehold at any time during its currency.

EFFECTS OF LAND LEGISLATION.

The lands specially referred to in the following examination are those included in rural holdings over 1 acre in extent, from which the agricultural and pastoral production of the country is obtained, municipal areas being dealt with separately as regards extent and revenue in another part of this volume. In the preceding pages an account has been given of the old methods of land alienation, and of the various Acts of Parliament which now regulate the division of the public estate among the settlers: the object of the examination which follows is to show what have been the effects of past and present legislation upon the settlement of the territory.

When the agitation which culminated in the framing of the Crown Lands Act of 1861 was in progress, it was contended that the Orders-in-Council then in force favoured the occupation of the country lands by the wealthier classes, and the principles of free selection before survey and of deferred payments were introduced in the new legislation with the object of facilitating the settlement of an agricultural population side by side with the great pastoral tenants of the Crown. The statistical records for the year 1861 show that at the close of that year, and just before the new legislation had come into force, there were already 21,175 holders of rural lands, of whom 17,654 were located in the old settled districts, comprising twenty counties, grouped around three principal centres—the metropolis and the county of Cumberland, the Hunter River Valley, and that portion of the central tableland of which Goulburn, Bathurst, and Mudgee were the first towns; while the remaining 3,521 settlers were scattered over the pastoral districts. The figures showing the area held by these settlers do not discriminate between the land alienated and that occupied under lease from the Crown; but they show that in the old settled districts there were some 254,347 acres under cultivation—or an average of 14 acres per holding—and 8,522,420 acres used for stock; whilst in the pastoral districts 43,228 acres were cultivated, and 54,716,463 acres were occupied for grazing; so that at that time 63,536,458 acres, representing about one-third of the territory of the colony, were already in the occupation of the settlers.

In addition to the clauses inserted in the Act of 1861 in the interests of colonists of small means, certain provisions were retained which secured the interests accrued to the pastoralists under former legislation, of which they availed themselves to the utmost. By means of auction sales of country lands at the upset price of 20s. per acre, of unconditional selections of lots not bid for at auction, of purchases made in virtue of improvements, and of the right of pre-emption to certain lands under the old Acts of Council, the accumulation of immense estates was greatly facilitated. The sales of lands subject to conditions of residence and improvements, though ostensibly made to foster the settlement of a numerous class of small farmers, were also availed of in the interests of station owners, to whom the purchases were transferred in great numbers immediately upon completion of the conditions of residence and improvements required under the Act. The evils resulting from the antagonistic interests of these two classes of settlers were partly checked by the amended law of 1884, which put a stop to the wholesale alienation of land by auction, unconditional selection after auction, and sales in virtue of pre-emptive rights. The clause relating to improvement purchases was also modified, and made applicable only to small areas in gold-fields which might be purchased by resident miners in virtue of certain improvements; and the area offered at auction sales was restricted to a maximum of 200,000 acres yearly; but conditional settlement was favoured by permitting the maximum area allowed to be taken up by free selectors to be considerably increased, the conditions of residence being increased to five years instead of three, and the fulfilment of the conditions of fencing and improvements rendered more stringent.

These regulations, however, did not, in any sense, fulfil the expectation of the legislators in regard to settling a yeomanry upon the soil, as the figures relating to transfers of conditional purchases published further on will show that, when other means of increasing the area of individual estates failed, the traffic in transfers of conditionally-purchased lands, with increased areas, supplied the deficiency. What effect the radical changes introduced by the Land Act of 1895 will have remains to be seen, but there is little doubt that great improvement will result from the new system.

The principal element which contributed to the aggregation of great landed estates was that of auction sales of country lands, which were measured in vast areas upon the application of the run-holders, who bought them up generally at the upset price—at first a minimum of £1 per acre, raised in 1878 to £1 5s. per acre.

The following analysis of the different methods by which lands have been alienated will account for the present state of rural settlement. Particulars of the auction sales of country lands from the year 1862 to 1896 inclusive are given hereunder :—

Year.	Lots.	Total Area.	Amount realised.	Average Price per Acre.
	No.	acres.	£	£ s. d.
1862	532	29,729	33,208	1 2 4
1863	765	15,392	18,163	1 3 7
1864	542	31,393	35,549	1 2 0
1865	1,289	63,303	71,532	1 2 7
1866	801	65,799	68,197	1 0 9
1867	806	70,701	75,432	1 1 4
1868	729	50,636	52,169	1 0 7
1869	1,236	93,428	96,364	1 0 8
1870	797	51,722	54,010	1 0 11
1871	1,034	49,303	50,270	1 0 5
1872	697	61,073	61,505	1 0 2
1873	2,274	274,581	278,110	1 0 3
1874	4,064	580,753	596,785	1 0 6
1875	6,658	978,377	992,786	1 0 3
1876	8,040	1,685,650	1,707,323	1 0 3
1877	8,380	1,829,613	1,838,457	1 0 1
1878	4,564	861,049	1,071,486	1 4 10
1879	2,012	353,372	447,557	1 5 4
1880	2,082	346,679	419,523	1 4 2
1881	2,691	523,657	616,309	1 3 6
1882	2,474	503,547	630,494	1 5 0
1883	226	25,826	41,268	1 11 2
1884	397	38,215	72,412	1 17 11
1885	51	1,654	5,513	3 5 10
1886	793	58,088	100,627	1 14 8
1887	1,124	103,748	158,747	1 10 7
1888	1,781	100,128	230,294	2 6 2
1889	482	18,430	42,389	2 6 3
1890	686	66,160	113,795	1 14 5
1891	703	44,348	89,139	2 1 8
1892	896	80,062	148,115	1 17 0
1893	1,019	91,964	175,115	1 18 1
1894	699	42,973	86,125	2 0 1
1895	485	19,990	57,008	2 2 3
1896	325	11,214	25,751	2 5 11
Total	62,134	9,222,557	10,561,527	1 2 11

These figures show that the struggle between selector and squatter did not begin in earnest until about the year 1873, when the effects of the legislation of 1861 were felt in an acute form; but during the ten years that followed, this process of defence was applied in a wholesale manner by the pastoral tenants to save their possessions from encroachment through the operations of the selectors. The system was modified by the legislation of 1884, the object of auction sales of country lands now being to obtain revenue by the sale of select parcels of land at a higher average price and in much smaller average areas. Since the year mentioned, this system of alienation has ceased to be of use in consolidating large pastoral estates.

Among other means offered for the unconditional purchase of Crown lands, that of selection at the upset price of lots not bid for at auction also disappeared with the passing of the Act of 1884. The following table shows the results of this system of purchase during the period 1862 to 1883, when it was in operation:—

Year.	Lots.	Total Area selected.	Year.	Lots.	Total Area selected.
	No.	acres.		No.	acres.
1862	477	22,347	1874	1,112	98,850
1863	362	17,384	1875	1,343	101,718
1864	248	12,388	1876	1,126	95,681
1865	251	12,582	1877	1,364	158,844
1866	332	16,413	1878	893	122,812
1867	270	15,803	1879	....	....
1868	283	18,589	1880	182	39,408
1869	545	39,085	1881	1,605	328,203
1870	367	23,375	1882	2,240	353,093
1871	340	23,700	1883	209	31,381
1872	929	83,733	Total......	15,750	1,716,976
1873	1,272	101,587			

From a comparison of the above figures with those shown in the preceding table, it will be seen that during the years 1881 and 1882 this form of unconditional purchase was largely availed of to supplement the direct purchases at auction.

The lands claimed in virtue of a pre-emptive right, a form of alienation which was also abolished by the Crown Lands Act of 1884, added the following quota to the areas bought in the interests of the pastoralists :—

Year.	Lots.	Total Area sold.	Year.	Lots.	Total Area sold.
	No.	acres.		No.	acres.
1862	117	30,619	1874	....	....
1863	217	58,032	1875	....	....
1864	47	13,128	1876	780	189,664
1865	75	23,459	1877	367	81,193
1866	76	25,616	1878	15	4,063
1867	78	30,039	1879	25	6,033
1868	139	52,260	1880	30	6,912
1869	18	7,617	1881	35	7,461
1870	9	3,718	1882	29	5,183
1871	21	8,623	1883	23	2,338
1872	9	3,379			
1873	4	1,488	Total.. ...	2,114	560,825

An examination of the figures in the tables just given shows that during the ten years from 1873 to 1882 the area alienated principally with the object of consolidating pastoral properties, and of securing them against the operations of conditional purchasers, amounted to 11,189,082 acres, made up as follows :—

Year.	By Auction Sales (Country Lots.)	Unconditionally sold by Selection.	Improved Lots sold to Owners of Improvements.	Sold by Pre-emption.	Total.
	acres.	acres.	acres.	acres.	acres.
1873	274,581	101,587	10,587	1,488	388,243
1874	580,753	98,850	20,546	....	700,149
1875	978,377	101,718	49,852	....	1,129,947
1876	1,685,650	95,681	86,099	189,664	2,057,094
1877	1,829,613	158,844	159,848	81,193	2,229,498
1878	861,049	122,812	224,841	4,063	1,212,765
1879	353,372	....	121,062	6,033	480,467
1880	346,679	39,408	237,646	6,912	630,645
1881	523,657	328,203	474,099	7,461	1,333,420
1882	503,547	353,093	165,031	5,183	1,026,854
Total...	7,937,278	1,400,196	1,549,611	301,997	11,189,082

The consolidation of pastoral estates did not suffer a serious check when the clauses of the Act of 1861, above cited, ceased to operate, as the transfer of conditional purchases supplied fresh means by the gradual absorption of a very large number of selections, principally in the Central and Western Divisions.

A comparison of the areas dealt with in the following table shows how fast the original conditional purchasers of Crown lands are dispossessing themselves of their holdings, whilst the area selected does not exhibit a tendency to increase at anything like the same rate. An examination of the table reveals the fact that since 1882 only, there have been 30,162,607 acres of conditional purchases transferred, as against 15,101,918 acres applied for—a difference of 15,060,689 acres, which have to a very large extent gone to increase the large estates, distinctly to the detriment of healthy settlement.

Year.	Selections.		Transfers.	
	Number.	Acreage.	Number.	Acreage.
1882	14,607	2,392,220	8,665	2,134,319
1883	10,725	1,621,948	6,213	1,508,583
1884	10,657	1,453,937	6,017	1,525,456
1885	5,372	1,114,871	9,079	2,286,730
1886	6,061	954,560	7,154	1,861,877
1887	4,478	723,151	7,440	2,159,429
1888	5,364	862,716	10,469	3,096,051
1889	4,686	740,964	10,741	2,327,562
1890	8,526	1,713,577	13,492	1,863,508
1891	6,149	1,306,534	16,727	2,333,808
1892	4,396	816,399	14,017	2,060,130
1893	3,393	533,805	12,581	1,825,097
1894	2,617	414,355	11,235	1,617,263
1895	1,751	253,431	11,517	1,785,011
1896	1,279	199,450	11,264	1,777,783
Total............	90,061	15,101,918	156,611	30,162,607

It must be remembered, however, that a proportion of these transfers was made by way of mortgage, and therefore it is not possible to ascertain the area absolutely transferred by the original selectors. But if to the area parted with by its owners since 1882 be added the extent of land transferred during the previous twenty years, the fact that 20,591,950 acres out of the total area alienated are now contained in 672 holdings, giving to each one an average domain of 30,642 acres, is easily accounted for. The number of holdings, however, does not represent the number of owners interested, as in not a few cases these large estates are held in partnership by three or four persons, or by companies and financial corporations.

RURAL SETTLEMENT.

EXCLUDING land held by the tenants of the Crown, there were in New South Wales, at the end of March, 1897, 63,143 holdings of 1 acre and upwards in extent. Twenty-one years previously such holdings numbered 36,984. The increase in number amounted during the period to 71 per cent., while the area comprised in the holdings advanced from 13,525,497 to 43,467,212 acres, or 221 per cent. The average area of alienated holdings gradually rose from 366 acres in 1876 to 770 acres in 1883 ; between 1884 and 1892 this average increased very little, while in 1893 the figures took a downward movement, falling to 688 acres in 1897—the lowest average since 1881. This decline in the average area is due to the increase in the number of small holdings, the advance in this respect during the last four years being slightly greater than that made during the previous eight years. The following table gives the average for each year since 1876 :—

Year ended 31 March.	Average size of Holding.	Year ended 31 March.	Average size of Holding.
	acres.		acres.
1876	366	1887	780
1877	459	1888	778
1878	482	1889	795
1879	567	1890	787
1880	569	1891	780
1881	691	1892	784
1882	753	1893	750
1883	770	1894	748
1884	770	1895	707
1885	762	1896	699
1886	778	1897	688

The increase shown between the first and last years of the above series is 322 acres, so that the average extent of holdings is nearly twice as large as in 1876. This is attributable mainly to the large area transferred to the larger estates by private purchase, and, during the earlier portion of the period, to the acquisitions by auction sale and improvement purchase, the influence of which has not been so marked since 1884.

Comparing the existing rural holdings of various sizes with those of the year 1880, it will be found that estates under 16 acres in extent have increased 183 per cent., while those from 16 to 200 acres in extent have advanced only 30 per cent. Between 201 and 400 acres in area the number of holdings shows an increase of 38 per cent.; those from 401 to 1,000 acres in area increased 51 per cent.; from 1,001 to 2,000 acres, 111 per cent.; from 2,001 to 10,000 acres, 124 per cent.; while in the largest class of holdings, those from 10,001 acres upwards, the increase in number has been 106 per cent. during the seventeen years. The subjoined table shows the number of holdings in different classes at various terms of the period named :—

Area.	Year ended 31st March.				
	1880.	1885.	1890.	1895.	1897.
Under 16 acres	4,974	5,409	7,290	12,301	14,082
16 to 200 acres	21,302	20,998	22,048	25,707	27,627
201 to 400 acres	6,199	6,363	6,774	8,299	8,579
401 to 1,000 acres.........	4,964	6,497	6,849	7,569	7,517
1,001 to 2,000 acres	1,212	1,886	2,191	2,475	2,557
2,001 to 10,000 acres ...	940	1,413	3,910	2,013	2,109
10,001 and upwards	327	513	658	656	672
Total	39,918	43,079	49,720	59,020	63,143

The holdings under 16 acres in extent are, generally speaking, in the vicinity of towns, and consist mainly of gardens or orchards, and the increase of 183 per cent. is what would naturally be expected from the growing demand for their produce by a large urban population. The least satisfactory feature in the table is the fact that the number of holdings of moderate size does not greatly increase. In 1880 the holdings having an area from 16 to 400 acres numbered 27,501, while in 1897 they numbered 36,206, showing an advance of only 32 per cent. On the other hand, the larger holdings have increased in a remarkable degree: in April, 1897, there were 12,855 holdings of 401 acres and upwards in extent, compared with 7,443 in 1880, or an increase of 73 per cent. in number during that short period. The area of holdings, as returned by occupiers, in every fifth year since 1880, and in 1897, is given below :—

Year ended 31st March.	Total Area of Holdings.
	acres.
1880	22,721,603
1885	32,843,317
1890	37,497,889
1895	41,736,073
1897	43,467,212

The area of unenclosed land in 1877 amounted to more than one-third of the whole extent of the holdings; but in the beginning of 1897 the proportion had fallen to one-twenty-sixth, the area unenclosed at that period being only 1,663,229 acres out of a total of 43,467,212 acres occupied. This result is due partly to the operation of legislation, and partly to the saving of labour which fencing enables occupiers to effect.

METROPOLITAN DISTRICT.

For the purpose of an examination of the statistics showing the present state of the settlement of alienated land in New South Wales, it will be better to extend the inquiry successively to the various parts of the colony, as far as possible, in the order in which they were opened up, following the march of colonization, in each of the four zones of settlement into which the country may be said to be geographically divided, viz., the coast, the tableland, the western slope of the Great Dividing Range, and the western plains. Each zone, having its own special character, offers to the settler different natural resources according to its climatic conditions. Proceeding from the metropolis as a centre, settlement extended first along the coast, then to the central and more readily accessible parts of the tableland, following afterwards the course of the great inland rivers towards the southern and western parts of the colony; thence to the great plains of the west, spreading slowly across the River Darling to the confines of the territory. Nature assisted by legislation contributed to the shaping of settlement into its present form—the natural course of events, however, being at times interrupted by sudden rushes of population to points scattered over the surface of the country, even to its remotest extremities.

That part of the county of Cumberland which embraces the area of the metropolis and its suburbs is outside the limits of this examination, as it is not intended to inquire into the present condition of urban settlement; but it may be stated, nevertheless, that as regards the subdivision and the distribution of landed property in the city and suburbs of Sydney there is now little difference between this and much older communities. The figures given below refer only to rural settlement in the remaining portion of this county, where the first attempts to colonize were made. It will be seen from the table, in which these holdings are distributed into series of various areas, that there are six distinct classes of holders of alienated land, viz.:—(1) Persons who occupy their own freeholds; (2) persons occupying holdings which they rent from the freeholders; (3) owners of land who rent from other private owners lands which they work in addition to their own freeholds; (4) persons who, in addition to their freehold, rent from the Crown areas which are generally devoted to the depasturing of stock; (5) persons who rent land belonging to private owners as well as land which belongs to the State; and (6) persons who, in addition to working their freehold, are both Crown and private tenants:—

Police Districts of the County of Cumberland.	Occupiers of—							Area alienated.		
	Freehold.	Private Rented.	Partly Freehold and partly Private Rented.	Freehold with Crown Lands attached.	Private Rented with Crown Lands attached.	Partly Freehold, partly Private Rented, and partly Crown Lands.	Total.	Freehold.	Private Rented.	Total.
	No.	No.	No.	No.	No.	No.	No.	acres.	acres.	acres.
Metropolitan	1,644	1,140	62	..	..	....	2,846	29,842	13,820	43,662
Ryde	791	165	55	..	..	....	1,011	22,346	3,542	25,888
Parramatta	923	193	52	..	..	....	1,168	37,042	16,304	53,346
Liverpool	723	290	50	..	..	....	1,063	36,940	37,291	74,231
Camden (*part of*)	66	40	20	..	..	....	126	17,123	16,774	33,897
Campbelltown	232	115	39	1	1	1	389	29,897	20,604	50,501
Wollongong (*part of*)	54	25	7	..	..	....	86	9,169	2,050	11,219
Windsor (*part of*)	537	196	55	..	..	....	788	45,263	16,152	61,415
Penrith (*part of*)	713	241	84	..	..	....	1,038	56,177	62,345	118,522
Total	5,683	2,405	424	1	1	1	8,515	283,799	188,882	472,681

Thus, in this part of New South Wales, outside towns and purely suburban areas, 472,681 acres are alienated in holdings over 1 acre in extent. Of this area, 283,799 acres, or 60·04 per cent., are in the occupancy of the owners of the land; whilst 188,882 acres, or 39·96 per cent., are leased to tenant occupiers. There are 5,683 persons occupying their own freeholds, 2,405 tenants of private land, 424 persons who both own and rent from private persons portions of their holdings, one owner of freehold with Crown lands attached; one person who stands in the position of renting a portion of his holding from private persons and a portion from the Crown; and one who, in addition to working his own freehold, is a Crown and private tenant. The area of alienated land enclosed in this district is 410,092 acres; and unenclosed, 62,589 acres. The area in cultivation is 46,605 acres. Persons working their own land cultivate 33,162 acres; and occupiers of private rented land, 13,443 acres.

From the number of rural landholders in the district it is clearly seen that the average area held by each cannot be very large. In the Police District of Camden it reaches 269 acres; in Campbelltown Police District, 130 acres; in Wollongong, 130; and in Penrith, 114 acres. In Windsor and in Liverpool the average is 78 and 70 respectively; in Parramatta, 50; while for Ryde it is only 26, and for the Metropolitan Police District only 15. The average area for the whole division is only 56 acres per holding.

The holdings in this division may be classified as follows:—

Size of Holdings.	Alienated Holdings.	Area of Holdings.		Area in Cultivation.	
		Total.	Proportion to Total Area of District.	Total.	Proportion to Area of Holdings.
	No.	acres.	per cent.	acres.	per cent.
1 to 30 acres	6,318	51,261	10·84	16,807	32·79
31 to 400 acres	2,001	191,319	40·48	24,881	13·00
401 to 1,000 acres	124	78,930	16·70	2,682	3·40
1,001 acres and upwards	72	151,171	31·98	2,235	1·60
Total	8,515	472,681	100·00	46,605	9·86

There are 26 lessees of Crown lands occupying an area of 2,984 acres, 1,742 acres being held under conditional lease and 1,242 acres under other forms of tenure. The area enclosed is 1,144 acres, and unenclosed 1,840 acres; and there are under cultivation 28 acres, principally market gardens. The value of improvements on Crown lands in this district is returned at £500. The total area of alienated land and Crown lands occupied is 475,665 acres. Deducting the area cultivated—46,633 acres—it will be seen that the area used for grazing and dairying and other purposes is 429,032 acres.

The total area of the district is 1,006,720 acres. The figures regarding alienation given above do not include holdings under 1 acre, and as this division includes the metropolitan district, an addition of rather more than 200,000 acres must be made to the alienated area on this account, thus bringing the area up to 675,000 acres, so that the actual area of Crown lands unoccupied is not more than 330,000 acres, including much that is of no practical use.

HUNTER AND HAWKESBURY VALLEYS.

From the county of Cumberland colonization advanced westward, and the alluvial lands of the Hawkesbury and Nepean valleys were rapidly occupied and covered with prosperous farms. The progress of settlement was then deflected to the northward by the high range of abrupt mountains in the west which was so long a barrier to the advance of the settler in that direction. The lower portion of the valley of the river Hunter, abounding with natural resources, mineral as well as agricultural, soon attracted colonists, and at the present time more population is concentrated in this district than in any other part of New South Wales outside the metropolitan area. The following table indicates the actual state of rural settlement in the district comprising the Hunter and Hawkesbury Valleys :—

Counties.	Occupiers of—							Area alienated.		
	Freehold.	Private Rented.	Partly Freehold and partly Private Rented.	Freehold with Crown lands attached.	Private Rented with Crown lands attached.	Partly Freehold, partly Private Rented, and partly Crown lands.	Total	Freehold.	Private Rented.	Total.
	No.	No.	No.	No.	No.	No.	No.	acres.	acres.	acres.
Durham	722	692	121	183	5	25	1,748	651,704	173,987	825,691
Hunter	133	61	24	35	3	5	261	112,366	17,455	129,821
Northumberland	1,584	1,155	262	36	3	7	3,047	364,557	183,539	548,096
Cook	867	195	127	54	5	13	1,261	135,401	53,237	188,638
Total	3,306	2,103	534	308	16	50	6,317	1,264,028	428,218	1,692,246

This division contains a total area of 5,310,080 acres, of which 1,692,246 acres, or 31·87 per cent., are alienated among 6,317 landholders, so that the average area of holdings in this part of the colony is 268 acres. Of the area thus alienated, 1,264,028 acres, or 74·70 per cent., are in the occupancy of the owners of the land; and 428,218 acres, or 25·30 per cent., are occupied by private tenants. In the farming counties of Durham and Northumberland the proportion of land held by freeholders is considerable, amounting respectively to 78·93 and 66·51 per cent. of the total area alienated in the county, and together to 60 per cent. of the total area alienated in the whole division. It will be seen on reference to the table that the proportion of land held by tenant occupiers is small compared with the total alienated area, only 25·30 per cent. being leasehold, of which 10·28 and 10·84 per cent. are in Durham and Northumberland respectively, while the rented portions of Hunter and Cook together only amount to 4·18 per cent.

The total number of occupiers is returned at 6,317 for the whole district. Of these, 3,306 occupy their own freeholds; 2,103 are private tenants; 534 rent various private areas in addition to their own land; 308 occupy, together with their freeholds, a certain area of Crown lands on lease; 16 occupy holdings a portion of which consists of private rented land and the other portion of Crown land; and 50 stand in the position of being the possessors of freehold with both private rented land and Crown lands. As before stated, the average area of holdings in this district is 268 acres, with a minimum of 150 acres in the county of Cook, and a maximum of 497 acres in that of Hunter. Durham comes next with 472 acres per holding; and the area is much lower in Northumberland, which has an average of 180 acres per holding. The area of alienated land enclosed is 1,538,678 acres; and unenclosed, 153,568 acres. There are 67,897 acres in cultivation—37,271 acres of land occupied by the owners, and 30,626 acres of private rented land. The classification of the holdings in this division will be found below. The average area of the large estates in the last series is 21,798 acres:—

Size of Holdings.	Alienated Holdings.	Area of Holdings.		Area in Cultivation.	
		Total.	Proportion to Total Area of District.	Total.	Proportion to Area of Holdings.
	No.	acres.	per cent.	acres.	per cent.
1 to 30 acres	2,242	24,411	1·44	10,611	43·47
31 to 400 acres	3,381	405,049	23·94	45,645	11·27
401 to 1,000 acres	415	259,599	15·34	6,440	2·48
1,001 to 10,000 acres ..	265	698,014	41·25	4,881	0·70
10,001 acres and upwards	14	305,173	18·03	320	0·10
Total	6,317	1,692,246	100·00	67,897	4·01

The area of Crown lands occupied in this district is 260,560 acres, held by 410 lessees, 374 of whom have also alienated land. Of this area, 108,729 acres are held under conditional lease, and 151,831 acres under other forms of lease. The area enclosed is 209,491 acres; and unenclosed, 51,069 acres. Only 259 acres of Crown lands are cultivated, chiefly in the county of Cook. The value of improvements is returned at £47,214, or an average of about 3s. 7d. per acre occupied.

The area of alienated land in holdings over 1 acre in extent and of Crown lands in occupation is 1,952,806 acres; and deducting from this the area cultivated—68,156 acres—there remains an area of 1,884,650 acres used for grazing and dairying. The total area of the district embraced in this division being 5,310,080 acres, there remain unalienated and unoccupied about 3,320,000 acres of Crown lands, making allowance for small holdings under 1 acre not included in the figures given above.

SOUTH COAST DISTRICT.

In the earlier portion of the present century colonization took a southerly direction from the metropolis, and settlement extended rapidly along the lower valleys of the rivers of the South Coast, where the best lands were alienated in grants of large areas to a few families. Later on, however, the nature of the country and a more intelligent apprehension of the principles which should guide colonization brought about the subdivision of these large estates into numerous and comparatively small holdings, which are at present cultivated by a fairly prosperous tenantry. This is especially the case in the county of Camden. The average area of estates in Auckland and Dampier, owing to their distance from the metropolis, and perhaps alſo to the mountainous character of a considerable portion of the land within their boundaries, reaches 376 and 337 acres respectively; but as the metropolis is approached the average area of the holdings decreases to 235 acres in St. Vincent and 173 acres in Camden, the average for the whole district being 228 acres per holding.

In the South Coast district alienated rural lands are occupied in the manner illustrated in the following table :—

Counties.	Occupiers of—							Area Alienated.		
	Freehold.	Private Rented.	Partly Freehold and partly Private Rented.	Freehold with Crown lands attached.	Private Rented with Crown lands attached.	Partly Freehold, partly Private Rented, and partly Crown lands.	Total.	Freehold.	Private Rented.	Total.
	No.	No.	No.	No.	No.	No.	No.	acres.	acres.	acres.
Camden	1,789	1,505	460	74	4	17	3,799	391,778	267,059	658,837
St. Vincent	711	353	133	129	11	26	1,363	232,239	88,740	320,979
Dampier	336	93	37	76	1	9	552	152,964	33,192	186,156
Auckland	542	190	104	62	5	8	911	283,755	58,360	342,115
Total	3,328	2,141	734	341	21	60	6,625	1,060,736	447,351	1,508,087

The area of alienated land is shown to be 1,508,087 acres, or 28·97 per cent. of the total area—5,205,120 acres—of this portion of the colony; the extent of land occupied by the proprietors themselves being 1,060,736 acres, or 70·34 per cent.; and of that leased to tenant occupiers, 447,351 acres, or 29·66 per cent. of the area alienated. There are altogether in these counties 3,328 occupiers of their own freeholds, 2,141 tenants of private rented lands, 734 persons occupying both their own and leased private lands, 341 occupiers of freehold with Crown lands attached, 21 persons occupying private rented lands with Crown lands attached, and 60 persons whose holdings are partly their own, partly leased from private owners, and partly belonging to the Crown—a total of 6,625 occupiers. The area of alienated land enclosed is 1,379,852 acres, leaving 128,235 acres unenclosed. The area in cultivation is 53,071 acres, of which 32,181 acres represent land occupied by the owners, and 20,890 acres land held under private tenancy.

The holdings in this division may be classified as under. The average area of large estates over 10,000 acres in extent is 15,817 acres :—

Size of Holdings.	Alienated Holdings.	Area of Holdings.		Area under Cultivation.	
		Total.	Proportion to Total Area of District.	Total.	Proportion to Area of Holdings.
	No.	acres.	per cent.	acres.	per cent.
1 to 30 acres	1,761	14,076	0·93	2,228	15·83
31 to 400 acres	4,030	596,047	39·52	35,371	5·93
401 to 1,000 acres......... ...	624	381,934	25·33	9,644	2·53
1,001 to 10,000 acres	205	436,942	28·97	4,992	1·14
10,001 acres and upwards..	5	79,088	5·25	836	1·06
Total	6,625	1,508,087	100·00	53,071	3·52

The area of Crown lands occupied is 485,991 acres, 85,652 acres being held under conditional lease. The area enclosed is 114,768 acres ; and unenclosed, 371,223 acres. The cultivated area is 337 acres—nearly all in the counties of St. Vincent and Auckland. The total number of lessees is 485, of whom 63 occupy Crown lands only ; and the value of improvements on Crown lands is returned at £45,730, or an average of about 1s. 10d. per acre occupied. This average may seem low, but is accounted for by the fact that a large area is unenclosed, especially in county Auckland.

The area of alienated land and Crown lands occupied is 1,994,078 acres, and, deducting the 53,408 acres cultivated, there are 1,940,670 acres used for grazing and dairying and other purposes. The total area of the counties comprising this district being 5,205,120 acres, the area neither alienated nor under occupation, making allowance for alienated holdings under 1 acre in extent, which are not included above, will be about 3,070,000 acres.

NORTH COAST DISTRICT.

In the North Coast district the occupation of the country has extended rapidly, of late years, along the banks of the fine rivers which empty into the Pacific Ocean. Figures regarding alienated holdings in this district will be found below :—

Counties.	Occupiers of—							Area alienated.		
	Freehold.	Private Rented.	Partly Freehold and partly Private Rented.	Freehold with Crown lands attached.	Private rented with Crown lands attached.	Partly Freehold, partly Private Rented, and partly Crown lands.	Total.	Freehold.	Private Rented.	Total.
	No.	No.	No.	No.	No.	No.	No.	acres.	acres.	acres.
Rous	1,354	698	123	60	6	7	2,248	466,779	84,458	551,237
Richmond	274	141	33	52	2	3	505	174,321	21,834	196,155
Clarence	759	627	113	65	9	13	1,586	142,953	61,875	204,828
Fitzroy	234	50	10	78	3	3	378	96,532	9,214	105,746
Raleigh	373	164	37	29	2	2	607	55,289	20,551	75,840
Dudley	249	270	65	50	7	9	650	83,491	46,633	130,124
Macquarie	902	554	116	27	2	4	1,605	228,636	93,979	322,615
Gloucester	677	271	113	128	12	13	1,214	327,413	259,117	586,530
Total	4,822	2,775	610	489	43	54	8,793	1,575,414	597,661	2,173,075

Of all the districts of New South Wales, the North Coast counties exhibit the best and most satisfactory results as regards settlement. Nowhere has the great object of the Act of 1861—to place an industrious farming population on the soil—been better fulfilled. The total number of land-holders is 8,793, of whom only 2,775 are private tenants, and 43 rent Crown lands in addition to lands owned by private persons ; while 4,822 occupy their own freeholds ; 610 work both their own land and additional areas rented from private owners ; 489 occupy areas of Crown lands together with their freeholds ; and 54 add to their own lands areas leased from private persons and also from the State. The total area alienated in this rich part of the colony amounts to 2,173,075 acres, or only 24·38 per cent. of the total extent of the district, which covers 8,913,640 acres ; and the average area of holdings is 247 acres, ranging from 125 acres in Raleigh to 386 acres in Richmond and 483 in Gloucester. The proportion of leasehold lands to the area alienated is comparatively small, there being only 597,661 acres so held, or 27·50 per cent. of the total alienated area ; whilst 1,575,414 acres, or 72·50 per cent., are in the occupancy of the owners of the land themselves. In the counties of Richmond and Fitzroy the area leased by private persons forms only 11·13 and 8·72 per cent. respectively of the area alienated ; and the maximum is reached in Gloucester, where 44·18 per cent. of the settled rural land is occupied by tenants.

The area enclosed is 1,548,543 acres, or about 71·26 per cent. of the total ; and the area unenclosed is 624,532 acres. The extent of land in cultivation is 148,304 acres, of which 86,775 acres are cultivated by the owners, and 61,529 acres by private tenants.

The holdings in this division may be classified as under. The average area of large estates of over 10,000 acres in extent is 24,819 acres :—

Size of Holdings.	Alienated Holdings.	Area of Holdings.		Area in Cultivation.	
		Total.	Proportion to Total Area of District.	Total.	Proportion to Area of Holdings.
	No.	acres.	per cent.	acres.	per cent.
1 to 30 acres	1,378	16,555	0·76	8,502	51·36
31 to 400 acres	6,593	801,433	36·88	120,792	15·07
401 to 1,000 acres	606	370,013	17·03	13,551	3·66
1,001 to 10,000 acres	194	439,048	20·20	5,063	1·15
10,001 acres and upwards	22	546,026	25·13	396	0·07
Total	8,793	2,173,075	100·00	148,304	6·83

The area of Crown lands occupied is 1,832,369 acres, held by lessees to the number of 709, of whom 586 occupy Crown lands in conjunction with alienated holdings, and 123 occupy Crown lands only. The area under conditional lease is 175,322 acres; and under all other forms of lease, 1,657,047 acres. The extent of Crown lands enclosed is 732,652 acres; and unenclosed, 1,099,717 acres. The area cultivated is 1,642 acres; and the value of improvements is returned as £81,501, or about 11d. per acre occupied, this small average being accounted for by the fact that so large an area remains unenclosed.

The area of alienated land and Crown lands occupied is 4,005,444 acres, and deducting from this the area cultivated—149,946 acres—there remains an area of 3,855,498 acres used for grazing and dairying and other purposes. The total area of the division being 8,913,640 acres, the area unalienated and unoccupied, making allowance for alienated holdings under 1 acre, which are not included above, will be about 4,750,000 acres, a large portion of which is, however, unfit for settlement.

From the foregoing a fairly clear idea may be obtained of the present state of rural settlement in the valleys of the coastal rivers, and in the country extending from the sea to the first slopes of the Great Dividing Range. Geographical features and climate are the main elements in determining the occupation of the soil, irrespective of administrative boundaries. In this part of the colony the settlement of the public lands has proceeded in a way very different from that of the tableland, which extends from north to south, and divides the rich agricultural valleys of the coastal rivers and their broken mountainous watershed from the immense plains of the western district.

CENTRAL TABLELAND.

After the difficulties between the coast and the interior had been overcome, the pioneers of colonization penetrated to the central tableland, thence extending to the south and the north, and afterward gradually spreading over the whole of the great western interior. At first they followed the course of the great rivers, and occupied, little by little, all the available land, until at the present time only very inferior country remains untenanted.

The central tableland, comprising the counties grouped around the cities of Bathurst, Orange, and Mudgee, was the first settled, and the occupation of the alienated lands at the present time is illustrated by the figures given in the following table :—

Counties.	Occupiers of—							Area alienated.		
	Freehold.	Private Rented.	Partly Freehold and partly Private Rented.	Freehold with Crown lands attached.	Private Rented with Crown lands attached.	Partly Freehold, partly Private Rented, and partly Crown lands.	Total.	Freehold.	Private Rented.	Total.
	No.	No.	No.	No.	No.	No.	No.	acres.	acres.	acres.
Brisbane	436	95	72	214	4	26	847	879,397	62,757	942,154
Phillip..........	398	128	32	168	7	22	755	266,557	29,866	296,423
Bligh	132	21	14	269	1	23	460	354,960	70,022	424,982
Lincoln	199	74	27	201	4	4	509	244,585	22,836	267,421
Gordon	205	46	14	180	1	9	455	318,374	14,775	333,149
Wellington	549	210	72	254	6	24	1,115	340,545	44,484	385,029
Roxburgh	356	173	45	158	11	27	770	189,263	101,337	290,600
Ashburnham....	893	123	47	245	12	21	1,341	613,872	52,755	666,627
Bathurst	756	621	161	142	15	42	1,737	614,548	178,971	793,519
Westmoreland ..	229	94	29	220	15	40	627	169,529	45,024	214,553
Total	4,153	1,585	513	2,051	76	238	8,616	3,991,630	622,827	4,614,457

From the foregoing table it will be seen that the number of holders of rural lands in this part of the colony is 8,616, of whom 4,153 occupy their own freeholds; 1,585 are private tenants; 513 lease lands from private owners in addition to their own freeholds; 2,051 persons occupy areas of Crown lands, generally for grazing purposes, in addition to their own freeholds; 76 rent both private and Crown lands; and 238 are tenants both of private parties and the Crown, as well as possessing land of their own. The area alienated is 4,614,457 acres, representing 39·61 per cent. of the whole area of the district, which is computed at 11,649,280 acres. The proportion of land occupied by the landowners themselves is 86·50 per cent., or 3,991,630 acres; whilst 622,827 acres are leased to tenant occupiers. In the county of Roxburgh the proportion of land leased is considerable, 101,337 acres out of 290,600 acres alienated in this county, or 34·87 per cent., being held by tenants; and in Westmoreland and Bathurst 45,024 acres and 178,971 acres respectively, or 20·98 and 22·55 per cent., are held in the same manner. The proportion in the remaining counties gradually diminishes from 16·48 per cent. in Bligh and 11·55 per cent. in Wellington to 6·66 per cent. in Brisbane and 4·43 per cent. in Gordon, where the country is less thickly settled, and is occupied principally for grazing purposes. In the central tableland are situated some of the finest freehold estates in New South Wales, the land having remained in the hands of the original grantees or their descendants, who consolidated their holdings by taking advantage on a large scale of the auction sale and improvement clauses of the Land Act of 1861.

The average area of holdings in this division is 535 acres, ranging from a maximum of 1,112 acres in Brisbane and 924 acres in Bligh, owing to the cause just mentioned, to a minimum of 345 acres in Wellington, and 342 in Westmoreland. The total area of alienated land enclosed is 4,540,339 acres, or 98·39 per cent.; the area unenclosed being only 74,118 acres. The area cultivated is 282,493 acres—207,205 acres being land worked by the owners, and 75,288 acres by tenants.

The holdings in this division may be classified as under. The average area of large estates over 10,000 acres in extent is 22,969 acres:—

Size of Holdings.	Alienated Holdings.	Area of Holdings.		Area in Cultivation.	
		Total.	Proportion to Total Area of District.	Total.	Proportion to Area of Holdings.
	No.	acres.	per cent.	acres.	per cent.
1 to 30 acres	1,700	13,524	0·29	5,285	39·08
31 to 400 acres	5,096	836,088	18·12	144,003	17·22
401 to 1,000 acres..	1,178	736,315	15·96	76,902	10·44
1001 to 10,000 acres......	576	1,512,592	32·78	49,339	3·26
10,001 acres and upwards	66	1,515,938	32·85	6,964	0·46
Total	8,616	4,614,457	100·00	282,493	6·12

The area of Crown lands occupied on the central tableland is 3,867,352 acres, of which 1,294,679 acres are held under conditional lease, and 8,126 acres under settlement lease. There are 3,398,688 acres enclosed, and 468,664 acres unenclosed. The number of lessees is 2,554, of whom 2,365 occupy Crown lands in addition to alienated holdings, and 189 occupy Crown lands only. The area cultivated is 4,196 acres, and the value of improvements is returned at £455,586—an average of about 2s. 4d. per acre occupied.

The area of alienated land and Crown lands occupied is 8,481,809 acres; and deducting from this the area in cultivation—286,689 acres—there remain 8,195,120 acres used for grazing and dairying and other purposes. The total area of the counties comprised in the district being 11,649,280 acres, the area neither alienated nor occupied, allowing for alienated holdings under 1 acre in extent, which are not included in the foregoing figures, will be about 3,045,000 acres.

SOUTHERN TABLELAND.

The conditions of settlement in the southern tableland do not greatly differ from those which obtain in the central district, the principal feature being the greater proportion of holdings occupied by their proprietors. The following table illustrates the state of settlement in the various counties which comprise this portion of the colony :—

Counties.	Occupiers of—							Area Alienated.		
	Freehold.	Private Rented.	Partly Freehold and partly Private Rented.	Freehold with Crown Lands attached.	Private Rented, with Crown Lands attached.	Partly Freehold, partly Private Rented, and partly Crown Lands.	Total.	Freehold.	Private Rented.	Total.
	No.	No.	No.	No.	No.	No.	No.	acres.	acres.	acres.
Forbes	263	32	13	128	3	6	445	369,164	20,509	389,673
Monteagle	601	57	43	106	2	16	825	524,095	29,592	553,687
Harden	610	132	64	99	3	14	922	766,681	67,783	834,464
King	482	126	72	299	6	28	1,013	533,000	67,183	600,183
Georgiana	241	84	29	264	12	50	680	266,240	71,020	337,260
Argyle	576	275	142	170	10	52	1,225	466,393	176,434	642,827
Murray	450	161	87	189	5	58	950	777,068	127,883	904,951
Cowley	31	4	..	65	..	11	111	99,503	17,994	117,497
Buccleuch	117	88	11	83	2	4	305	189,145	8,737	197,882
Clarendon	368	127	61	39	1	5	601	569,973	56,810	626,783
Wynyard	541	200	64	86	1	20	912	593,949	53,816	647,765
Goulburn	345	69	31	69	1	7	522	527,613	60,416	588,029
Selwyn	128	18	17	74	3	8	248	232,254	11,962	244,216
Wallace	133	23	13	200	6	12	387	412,824	16,140	428,964
Beresford	199	44	17	113	10	14	397	323,152	16,020	339,172
Wellesley	275	62	26	123	4	12	502	492,822	34,129	526,951
Total	5,360	1,502	690	2,107	69	317	10,045	7,143,876	836,428	7,980,304

Thus the land alienated in this part of the colony comprises 7,980,304 acres, or 47·63 per cent. of the whole of its area, which contains 16,755,200 acres. Of this extent of land, only 836,428 acres, or 10·48 per cent. of the settled lands, are held in tenancy; whilst 7,143,876 acres, or 89·52 per cent., are occupied by the landowners themselves. The percentage of land held in tenancy is greatest in the counties of Argyle and Georgiana, where it is 27·44 and 21·06 respectively. There are 15·31 per cent. in Cowley county, 14·13 in Murray, 11·19 in King, 10·27 in Goulburn, 9·06 in Clarendon, and 8·31 in Wynyard. In the other counties the proportion dwindles from 8·12 per cent. in Harden to a minimum of 3·76 per cent. in the southern county of Wallace.

In the whole of this district the total number of occupiers is 10,045, of whom 5,360 occupy their own freeholds ; 1,502 are private tenants; 690 occupy both descriptions of alienated lands; 2,107 occupy areas of Crown lands in addition to their freeholds ; 69 occupy private rented lands with Crown lands attached ; and 317 persons who possess freeholds also rent land from private owners and from the Crown. The conditions of settlement in which pastoral occupation is the leading feature must necessarily greatly affect the average extent of rural holdings, and in this division it will be found to attain fairly high proportions, 794 acres being the average throughout, with a maximum of [illegible] acres in Goulburn, and a minimum of 525 acres in Argyle. The area of alienated land enclosed is 7,878,744 acres; and unenclosed, 101,560 acres. The total extent in cultivation is 307,920 acres, viz., 244,021 acres worked by owners, and 63,899 acres by tenants. This is small in proportion to the area of the district; but it is on the large estates of the southern tableland that there has been the most notable increase in cultivation. The area cultivated on estates over 10,000 acres in extent, viz., 33,846 acres, is 193 per cent higher than that of four years ago, when it stood at 22,492 acres. The advance has taken place in every county in the district, but the county of Monteagle shows an increase in the area cultivated on these large holdings from [illegible] acres in the year 1892-3 to 3,866 acres in 1893-4, 11,059 acres in 1894-5, 11,616 acres in 1895-6, and 17,655 acres in 1896–7. The average area of large estates over 10,000 acres in extent is 21,570. The holdings in this division may be classified as under:—

Size of Holdings.	Alienated Holdings.	Area of Holdings.		Area in Cultivation.	
		Total.	Proportion to Total Area of District.	Total.	Proportion to Area of Holdings.
	No.	acres.	per cent.	acres.	per cent.
1 to 30 acres	2,002	16,874	0·21	5,062	30·00
31 to 400 acres	5,225	861,786	10·80	92,461	10·73
401 to 1,000 acres	1,472	954,673	11·96	75,888	7·95
1,001 to 10,000 acres	1,213	3,278,102	41·08	100,663	3·07
10,001 acres and upwards	133	2,868,869	35·95	33,846	1·18
Total	10,045	7,980,304	100·00	307,920	3·86

The area of Crown lands occupied in the counties of the southern tableland is 4,539,769 acres, of which there are under conditional lease 1,476,335 acres. The area enclosed is 3,191,717 acres, and unenclosed 1,348,052 acres. The total number of lessees is 2,666, of whom 2,493 hold alienated lands also, and 173 occupy Crown lands only. The area cultivated on Crown lands is very small—only 1,326 acres. The value of improvements is returned at £424,368, or an average of about 1s. 10d. per acre occupied.

The area of alienated land and Crown land occupied is 12,520,073 acres, and deducting the area cultivated, 309,246 acres, there remain 12,210,827 acres devoted to grazing and dairying. The total area of the district is 16,755,200 acres, and making allowance for alienated holdings under 1 acre in extent, which are not included in the foregoing there are left neither alienated nor occupied about 4,060,000 acres which, of course, include land that is of no practical use.

NORTHERN TABLELAND.

In the northern tableland the disproportion between freeholders and tenants is strongly marked, the latter forming a very small minority of the occupiers of alienated lands, owing to the same causes which operate both in the south and in the centre of this great section of the colony. It is evident that the object of the Land Act of 1861 to create a class of independent settlers has been fairly successful, notwithstanding the fact that the number of actual occupiers is small compared with that of the individual selectors who, since the year 1861, have applied for conditional purchases. The following figures illustrate the state of settlement in the part of the country in question:—

Counties.	Occupiers of—							Area Alienated.		
	Freehold.	Private Rented.	Partly Freehold and partly Private Rented.	Freehold with Crown Lands attached.	Private Rented with Crown Lands attached.	Partly Freehold, partly Private Rented, and partly Crown Lands.	Total.	Freehold.	Private Rented.	Total.
	No.	No.	No.	No.	No.	No.	No.	acres.	acres.	acres.
Parry	219	83	22	111	4	15	454	489,291	18,098	507,389
Buckland	248	26	24	76	..	13	387	693,676	12,906	706,582
Vernon	133	30	8	111	..	4	286	314,957	7,146	322,103
Inglis	152	39	13	141	..	9	354	154,191	22,120	176,311
Darling	89	45	14	222	2	18	390	274,050	21,389	295,439
Sandon	594	127	38	128	3	4	894	458,439	32,982	491,421
Clarke	46	10	3	114	2	4	179	150,110	4,442	154,552
Hardinge	81	30	11	179	3	8	312	228,158	13,399	241,557
Clive	325	44	20	121	..	2	512	136,211	2,662	138,873
Hawes	7	1	..	88	1	1	98	96,791	675	97,466
Gresham	10	..	2	7	..	1	20	20,152	480	20,632
Gough	435	137	54	144	12	18	800	553,188	42,057	595,245
Arawatta	101	17	25	99	..	5	247	223,628	18,209	241,837
Drake	15	7	..	23	..	2	47	114,235	1,499	115,734
Buller	64	7	1	65	3	3	143	47,129	2,373	49,502
Total	2,519	603	235	1,629	30	107	5,123	3,954,206	200,437	4,154,643

The total area alienated in this district is 4,154,643 acres, or 28·37 per cent. of the whole extent of 14,643,200 acres. The total number of occupiers of rural settled lands is 5,123, of whom 2,519 live on their freeholds; 603 are tenants of private lands; 235 rent private lands in addition to possessing freehold land; 1,629 occupy Crown lands in addition to their freeholds; 30 occupy private rented lands with Crown lands attached; and 107 persons who possess freeholds are also tenants of the Crown and of private landowners. The proportion of the area occupied by private tenants is 200,437 acres, or 4·82 per cent. of the whole extent of alienated land; whilst 95·18 per cent., representing 3,954,206 acres, is occupied by the landowners themselves. The land is used both for agricultural and pastoral purposes, and these industries are generally carried on conjointly. The average area of holdings in the district is 811 acres, ranging from 271 acres per holding in Clive to 2,462 acres in Drake. The average in the county of Buckland is 1,826 acres; but in the districts surrounding the towns of Glen Innes and Inverell a large decrease is experienced, the average area of the holdings being only 744 and 774 acres in Gough and Hardinge respectively. The area of alienated land enclosed is 3,962,425 acres; and unenclosed, 192,218 acres. There are 112,210 acres cultivated—that is, about 2·17 per cent. of the alienated area—96,127 acres being land tilled by the proprietors, and 16,083 by tenants. The average area of large estates over 10,000 acres in extent is 27,235 acres. The holdings in this division may be classified as under:—

Size of Holdings.	Alienated Holdings.	Area of Holdings.		Area in Cultivation.	
		Total.	Proportion to Total Area of District.	Total.	Proportion to Area of Holdings
	No.	acres.	per cent.	acres.	per cent.
1 to 30 acres	975	7,749	0·18	3,242	41·84
31 to 400 acres	2,944	494,067	11·89	58,735	11·89
401 to 1,000 acres	704	444,085	10·69	26,462	5·96
1,001 to 10,000 acres ...	423	1,111,673	26·76	19,976	1·80
10,001 acres and upwards	77	2,097,069	50·48	3,795	0·18
Total	5,123	4,154,643	100·00	112,210	2·70

There are 6,107,406 acres of Crown lands occupied in this division, 1,589,870 acres of which are held under conditional lease, and 13,260 acres under settlement lease. The area of Crown lands enclosed is 4,074,929 acres; and unenclosed, 2,032,477 acres. The value of improvements is returned at £429,766—an average of nearly 1s. 5d. per acre occupied, the unenclosed area being very large. Only a very small area, 469 acres, is under cultivation. The total area of alienated lands and Crown lands held under lease is 10,262,049 acres, and deducting from this the area cultivated—112,679 acres—it will be seen that the area devoted to grazing and dairying is 10,149,370 acres. The total area of the district is 14,643,200 acres, and making allowance for alienated land in holdings under an acre in extent, which are not included in the foregoing, there remains neither alienated nor under occupation an area of about 4,250,000 acres.

SOUTH-WESTERN SLOPE.

The districts situated on the western slope of the Great Dividing Range mark the transition between the agricultural settlements of the coast and tableland and the purely pastoral settlements of the great western region. The extent of arable land in the division is very considerable, but in proportion to the total area of holdings little is devoted to cultivation, as it is more advantageous at present to use the land for grazing purposes, the great distance to the markets being the principal obstacle to a rapid expansion of agriculture on the tableland. Notwithstanding this, however, a considerable impetus has been given to agriculture during the last two years, some of the most notable increases having taken place in this district.

It will be noticed that the proportion of land alienated considerably diminishes as the districts on the western slope are reached, except in those parts where the excellence of the land for grazing purposes, and even for agriculture, impelled the pastoral tenants of the Crown some years ago to secure their holdings from the incursions of the free selector—whom the Act ostensibly intended to favour—by means of systematic purchases under the auction sale and improvement clauses of the Land Act of 1861. In the south-western districts, which are traversed by the principal permanent rivers of western New South Wales, the land has been alienated in a wholesale fashion, and immense areas of freehold land are in the hands of a very small number of landholders; while in the north-western districts the freehold estates are neither so numerous nor of such an enormous extent as those in the south. The state of settlement in the counties situated in the southern part of the western slope of the Great Dividing Range may be gathered from the following figures:—

Counties.	Occupiers of—							Area Alienated.		
	Freehold.	Private Rented.	Partly Freehold and partly Private Rented.	Freehold with Crown Lands attached.	Private Rented with Crown Lands attached.	Partly Freehold, partly Private Rented, and partly Crown Lands.	Total.	Freehold.	Private Rented.	Total.
	No.	No.	No.	No.	No.	No.	No.	acres.	acres.	acres.
Dowling	21	3	1	45	..	4	74	114,164	3,279	117,443
Gipps	22	6	2	165	..	6	201	537,104	6,342	543,446
Bland	378	40	18	231	7	21	695	724,460	46,254	770,714
Bourke	398	78	30	94	2	5	607	586,021	52,364	638,385
Cooper	76	19	2	79	4	7	187	636,733	14,526	651,259
Nicholson	37	15	3	51	2	2	110	339,303	13,363	352,666
Sturt	22	2	2	19	..	1	46	600,532	4,544	605,076
Waradgery......	52	12	3	66	1	16	150	894,288	36,930	931,218
Boyd	41	..	1	6	..	..	48	654,109	5,120	659,229
Mitchell	192	57	17	36	1	6	309	619,813	44,774	664,587
Urana	287	23	16	42	..	5	373	1,525,021	27,834	1,552,855
Townsend	171	44	12	36	2	3	268	1,645,688	28,156	1,673,844
Wakool	89	1	13	55	1	5	164	1,151,382	12,027	1,163,409
Cadell	156	21	22	7	..	1	207	469,374	14,210	483,584
Denison	211	174	23	12	2	4	426	580,347	84,808	665,155
Hume	315	94	48	18	1	1	477	821,862	64,372	886,234
Total	2,468	589	213	902	23	87	4,342	11,900,201	458,903	12,359,104

The total area of this district, commonly called Riverina, is computed at 22,273,360 acres, of which 12,359,104 acres are now alienated, or 55·49 per cent. of the whole area. In some of the counties, however, a greater proportion of the land has been parted with; thus in Denison 84·36 per cent. is alienated, or 665,155 acres out of a total of 788,480 acres. This county is closely followed by Hume, with 83·22 per cent., or 886,234 acres out of 1,064,960 acres; Mitchell, with 80·50 per cent., or 664,587 acres out of 825,600 acres; Urana, with 77·68 per cent., or 1,552,855 acres out of 1,999,080 acres; Cadell, with 72·44 per cent., or 483,584 acres out of 667,520 acres; Townsend, with 71·68 per cent., or 1,673,844 acres out of 2,335,080 acres; Boyd, with 65·82 per cent., or 659,229 acres out of 1,001,600 acres; Sturt, with 62·53 per cent., or 605,076 acres out of 967,680 acres; and Wakool, with 61·21 per cent., or 1,163,409 acres out of 1,900,800 acres. The counties of Waradgery, Bland, Bourke, and Cooper have respectively 52·17 per cent., 49·78 per cent., 43·37 per cent., and 36·98 per cent. of their total areas alienated, while in Gipps 34·69 per cent. is alienated; but in the county of Nicholson the percentage is only 24·98, and in Dowling only 9·97. The percentage of land held by tenants is very small, ranging from 0·75 per cent. in Sturt to 12·75 in Denison, the percentage for the whole district being only 3·71.

The number of holders of rural lands in the Riverina district is 4,342, of whom 2,468 occupy their own freeholds; only 589 are private tenants alone; 213 rent private lands in addition to their freeholds; 962 persons occupy areas of Crown lands, generally for grazing purposes, in addition to their own freeholds; 23 persons occupy private rented lands with Crown lands attached; and 87 persons who possess freeholds also rent land from the Crown and from private owners.

As might be expected, the average area of holdings is high in these districts, where the auction and improvement clauses of the Crown Lands Act of 1861 were extensively brought into operation for the purpose of consolidating holdings and preventing the land from falling into the hands of the free selectors, whom the great pastoral lessees did not look upon as desirable neighbours. The land was, indeed, bought up wholesale, the pastoralists being greatly helped by the various banking corporations, and their joint operations resulted in the alienation of immense areas of the best pastoral land in the colony. The average area of holdings for the whole district is 2,846 acres; but in the county of Boyd it reaches 13,734 acres; in Sturt, 13,154 acres; in Wakool, 7,094 acres; in Townsend, 6,246 acres; and in Waradgery, 6,208 acres, diminishing from 4,163 in Urana to 1,052 acres in Bourke.

Practically the whole of the alienated land in this district is enclosed, only 97,930 acres out of a total area of 12,359,104 acres being open. The area under cultivation is 535,088 acres, of which

418,649 acres represent land worked by proprietors, while 116,439 acres are worked by tenants. The holdings in this division are thus distributed :—

Size of Holdings.	Alienated Holdings.	Area of Holdings.		Area in Cultivation.	
		Total.	Proportion to Total Area of District.	Total.	Proportion to Area of Holdings.
	No.	acres.	per cent.	acres.	per cent.
1 to 30 acres	393	2,980	0·02	722	24·23
31 to 400 acres	1,740	377,911	3·06	107,900	28·58
401 to 1,000 acres.........	1,158	737,861	5·97	136,112	18·45
1,001 to 10,000 acres ...	856	2,259,583	18·28	195,461	8·65
10,001 acres and upwards	195	8,980,769	72·67	94,893	1·06
Total...............	4,342	12,359,104	100·00	535,088	4·33

The average area of estates over 10,000 acres in extent is 46,055 acres. The area cultivated on these large holdings is small in comparison with their total extent, but it is nevertheless nearly three times as much as it was four years ago, the same tendency being observable in this district as has been referred to in the southern tableland.

The total area of Crown lands occupied on the South-Western slope is 8,489,751 acres, only 1,044,199 acres of which remain unfenced. The area held under conditional lease is 1,961,806 acres, and under settlement lease, 209,974 acres. In cultivation there are 12,434 acres, of which 9,343 acres are in the counties of Bland, Nicholson, Bourke, and Cooper. The value of improvements is returned at £1,027,009, or an average of about 2s. 5d. per acre. The number of lessees is 1,194, of whom 1,072 occupy Crown lands attached to alienated holdings, and 122 occupy Crown lands only.

The area of alienated lands and Crown lands occupied is 20,848,855 acres, and deducting from this the cultivated area—547,522 acres—the area devoted to grazing and dairying is 20,301,333 acres. The total area of the district is 22,273,360 acres; so that, allowing for alienation in holdings under 1 acre in area, there are not more than about 1,400,000 acres unalienated and unoccupied.

WESTERN-CENTRAL SLOPE.

The condition of settlement in regard to the lands on the central westward slope is illustrated by the following table :—

Counties.	Occupiers of—							Area alienated.		
	Freehold.	Private Rented.	Partly Freehold and partly Private Rented.	Freehold with Crown Lands attached.	Private Rented with Crown Lands attached.	Partly Freehold, partly Private Rented, and partly Crown Lands.	Total.	Freehold.	Private Rented.	Tota .
	No.	No.	No.	No.	No.	No.	No.	acres.	acres.	acres.
Gregory	11	3	4	74	1	14	107	566,426	56,360	622,786
Ewenmar	30	10	4	136	1	11	192	286,311	22,493	308,804
Canbelego	17	1	1	33	..	..	52	37,730	5	37,735
Oxley	72	7	2	62	..	5	148	242,858	9,978	252,836
Narromine	148	21	6	111	2	4	292	193,311	20,765	214,076
Flinders	3	..	..	67	..	..	70	70,640	....	70,640
Kennedy........	18	1	..	119	1	4	143	165,101	9,853	174,954
Cunningham	40	15	5	138	2	10	210	297,579	14,720	312,299
Total	339	58	22	740	7	48	1,214	1,859,956	134,174	1,994,130

The total area alienated amounts to 1,994,130 acres, or 17·76 per cent. of the total area of the district, which is estimated at 11,228,520 acres. The greatest area alienated is in the county of Gregory, where there are 622,786 acres, or 31·70 per cent. of the total area, held by settlers. The percentage of alienated land in Oxley is 29·77 ; in Ewenmar, 23·49 ; in Cunningham, 20·37 ; in Narromine, 18·51 per cent., and in Kennedy 11·93 per cent. has been parted with ; but in Flinders the proportion is only 4·57 per cent., and in Canbelego 2·70 per cent. The land is almost entirely devoted to pastoral pursuits, there being only 35,414 acres under cultivation, of which 29,888 acres, or 84·40 per cent., are in the counties of Narromine, Kennedy, and Cunningham. Only 1,764 acres are cultivated by tenants. Although the area occupied by tenants is proportionately larger than is the case farther south, there are only 134,174 acres so held, the proprietors occupying 1,859,956 acres out of the 1,994,130 acres of alienated land which the district contains. The proportion held by tenants ranges from 9·70 per cent. in Narromine and 9·05 per cent. in Gregory to 3·95 per cent. in Oxley and 0·01 per cent.

in Canbelego, giving an average of 6·73 per cent. for the whole district. The area of alienated land enclosed is 1,926,196 acres, and only 67,934 acres are unenclosed.

As a result of the small number of settlers in such an extensive district, the average area of holdings is necessarily fairly large, although it does not attain to such proportions as in the south, the average of this division being 1,643 acres, with a maximum of 5,819 acres in Gregory and a minimum of 725 acres in Canbelego.

The holdings in this division may be thus classified. The average area of large estates over 10,000 acres in extent is 27,760 acres:—

Size of Holdings.	Alienated Holdings.	Area of Holdings.		Area in Cultivation.	
		Total.	Proportion to Total Area of District.	Total.	Proportion to Area of Holdings.
	No.	acres.	per cent.	acres.	per cent.
1 to 30 acres	154	1,668	0·08	304	18·22
31 to 400 acres	355	67,751	3·40	5,864	8·66
401 to 1,000 acres	424	268,431	13·46	10,722	3·99
1,001 to 10,000 acres ...	245	656,928	32·94	14,059	2·14
10,001 acres and upwards	36	999,352	50·12	4,465	0·45
Total	1,214	1,994,130	100·00	35,414	1·78

The area of Crown lands occupied in this district is 7,681,082 acres, of which 7,517,388 acres are enclosed. The area under conditional lease is 2,007,810 acres, and under settlement lease 100,756 acres; and there are 160,742 acres under homestead lease in the county of Canbelego. The area under cultivation is only 5,768 acres; and the value of improvements on Crown lands is £906,454, or an average of about 2s. 4d. per acre occupied. There are 875 lessees, of whom 795 also have alienated estates, and 80 occupy Crown lands only.

The total area of alienated lands and Crown lands occupied is 9,675,212 acres, of which 9,634,030 acres are devoted to the pastoral and dairying industry. The total area embraced in the counties comprising the Western-Central district is 11,228,520 acres, and making allowance for alienated estates under 1 acre in extent, which are not included in the foregoing, there remains neither alienated nor under lease an area of not more than 1,520,000 acres.

NORTH-WESTERN SLOPE.

In the northern portion of the western slope of the Dividing R
the distribution of settlement closely resembles that met with i
division just examined, as the following table shows :—

Counties.	Occupiers of— Freehold.	Private Rented.	Partly Freehold and partly Private Rented.	Freehold with Crown Lands attached.	Private Rented with Crown Lands attached.	Partly Freehold, partly Private Rented, and partly Crown Lands.	Total.	Area Alienated. Freehold.	Private Rented.
	No.	No.	No	No.	No.	No.	No.	acres.	acres.
Stapylton	21	2	3	60	1	9	96	176,329	12,517
Burnett	75	8	3	102	..	4	192	443,108	6,083
Courallie	60	22	6	59	..	5	152	587,850	14,309
Benarba	15	2	2	158	2	8	187	300,983	16,792
Murchison	121	21	19	98	2	8	269	212,855	12,188
Nandewar	115	32	4	52	..	5	208	276,248	13,153
Jamison	21	6	1	90	..	12	130	392,128	9,485
Denham	8	5	..	80	1	8	102	218,260	39,767
Leichhardt......	40	13	5	168	..	10	236	544,018	39,261
Baradine........	41	9	3	79	1	2	135	122,716	3,443
White	61	7	2	17	..	2	89	37,757	3,196
Pottinger	169	26	11	117	1	6	330	855,200	24,526
Napier..........	23	5	4	31	1	5	69	157,851	14,308
Gowen..........	81	31	10	126	2	9	259	212,812	5,648
Total	851	189	73	1,237	11	93	2,454	4,538,115	214,676

The area alienated is 4,752,791 acres, or 24·81 per cent. of the
area, which is 19,157,800 acres. The highest proportion of alienate
is in Pottinger, around Gunnedah, where 879,726 acres, or 48·7
cent. of the total area of the county, calculated at 1,804,120 acres,
been alienated, the greater portion to the pastoralists, who have succ
in preventing the settlement of an agricultural class on the best p
of the famed Liverpool Plains. The competition between the pas
ists and the selectors was not so keen in the north-western d
as it was in the central, and more particularly in the south-w
division, presumably because the land, though equally good in qu
is too distant from the markets, and the country is more expos
extreme climatic influences in the northern parts. The averag
of holdings throughout the district, though higher than in the ce
western district, is not so large as the average in the south-west, rea
1,937 acres, with a maximum of 3,962 acres in Courallie, owing to
explained above, and a minimum of 460 acres in White. The di
with the exception of its eastern portion, abutting on the bound
the tableland of New England, is entirely devoted to the depast
of stock. There are 366 tenant occupiers, renting 214,676 acre
balance of the alienated area—4,538,115 acres—being occupied by
proprietors. The total number of holdings is 2,454, of which 8

freehold, 189 private rented properties, 73 partly freehold and partly private rented lands, 1,237 freeholds to which have been added Crown lands, 11 private rented lands with Crown lands attached, and 93 partly freehold and partly private rented and Crown lands.

The proportion of land held by tenant occupiers is not large, amounting only to 4·52 per cent. for the district. In Denham, however, it reaches 15·41 per cent.; in Napier, 8·31 per cent.; in White, 7·80 per cent.; in Leichhardt, 6·73 per cent.; and in Stapylton, 6·63 per cent.; but the proportion is very small everywhere else. The greater part of the alienated land in the district is enclosed, only 94,730 acres out of a total of 4,752,791 acres remaining open. The area cultivated is 24,648 acres, 22,571 acres being tilled by proprietors and 2,077 acres by tenants.

The holdings in this division may be classified as follow. The average area of large estates over 10,000 acres in extent is 32,295 acres :—

Size of Holdings.	Alienated Holdings.	Area of Holdings.		Area in Cultivation.	
		Total.	Proportion to Total Area of District.	Total.	Proportion to Area of Holdings.
	No.	acres.	per cent.	acres.	per cent.
1 to 30 acres	267	2,191	0·05	580	26·47
31 to 400 acres	1,017	170,013	3·58	11,752	6·91
401 to 1,000 acres.........	631	405,467	8·53	6,065	1·50
1,001 to 10,000 acres ...	448	1,236,312	26·01	4,255	0·34
10,001 acres and upwards	91	2,938,808	61·83	1,996	0·07
Total	2,454	4,752,791	100·00	24,648	0·52

In the north-western district there are under lease 10,892,831 acres of Crown lands, 9,569,271 acres being enclosed and 1,323,560 acres open. The total area under conditional lease is 3,088,204 acres, and there are 481,398 acres under settlement lease. There is no cultivation to speak of, the entire area under crop being only 693 acres. The value of improvements on Crown lands is returned at £830,277, or about 1s. 6d. per acre. There are 1,530 lessees, 1,341 occupying Crown lands in addition to their alienated holdings, and 189 occupying Crown lands only.

The area of alienated lands and Crown lands occupied is 15,645,622 acres, and deducting the area cultivated, 25,341 acres, there remain 15,620,281 acres devoted to the pastoral and dairying industries—chiefly, of course, the former. The total area of the counties comprising this division being 19,157,800 acres, the area remaining unalienated and unoccupied by lease, allowing for alienation in holdings under 1 acre in extent, which are not included in the figures given above, will not be more than about 3,455,000 acres.

THE WESTERN PLAINS.

In the extreme west of the colony settlement is making but slow progress. With the exception of the great mining centre of Broken

Hill, situated on the boundary of the neighbouring colony of South Australia, around which a large population has settled within the last few years, the whole of this vast portion of the domain of New South Wales is given up to the depasturing of stock. Sheep-breeding is practically the only industry, the general character of the country militating against the successful rearing of cattle. The present state of settlement on the western plains is illustrated by the figures given below :—

Counties.	Occupiers of—							Area Alienated.		
	Freehold.	Private Rented.	Partly Freehold and partly Private Rented.	Freehold, with Crown Lands attached.	Private Rented, with Crown Lands attached.	Partly Freehold, partly Private Rented, and partly Crown Lands.	Total.	Freehold.	Private Rented.	Total.
	No.	No.	No.	No.	No.	No.	No.	acres.	acres.	acres.
Finch	9	4	..	18	7	2	40	136,330	943	137,273
Narran	12	7	5	18	3	1	46	71,026	21,926	92,952
Culgoa	9	2	..	7	..	..	18	14,544	1,000	15,544
Gunderbooka ..	21	1	..	17	1	..	40	25,601	480	26,081
Irrara	5	..	..	6	..	..	11	11,082	....	11,082
Barrona	..	..	..	1	..	..	1	40	....	40
Cowper	17	12	..	19	2	1	51	38,752	2,649	41,401
Clyde	16	6	..	30	2	3	57	84,266	52,437	136,703
Robinson	36	8	1	13	1	..	59	12,797	1,234	14,031
Yanda	3	..	..	6	2	..	11	8,225	2,720	10,945
Landsborough ..	1	..	..	3	..	..	4	9,111	....	9,111
Booroondarra ..	..	..	..	5	..	..	5	2,140	....	2,140
Rankin	2	..	..	7	..	..	9	9,007	....	9,007
Killara	1	1	..	3	..	..	5	8,761	145	8,906
Woore	2	1	..	7	..	..	10	6,605	80	6,685
Werunda	4	..	..	3	..	..	7	3,067	....	3,067
Mouramba	32	..	2	8	..	..	42	8,501	210	8,711
Blaxland	23	8	1	19	..	..	51	62,383	3,046	65,429
Mossgiel	7	1	..	11	1	..	20	27,773	420	28,193
Franklin	6	5	..	17	4	2	34	200,835	5,804	206,639
Waljeers	1	2	..	11	3	1	18	195,276	19,148	214,424
Caira	42	7	6	22	..	2	79	346,798	5,580	352,378
Taila	14	1	3	8	..	..	26	18,632	2	18,634
Kilfera	3	..	..	4	..	..	7	13,013	....	13,013
Manara	..	2	..	6	..	..	8	35,142	200	35,342
Young	24	5	..	15	..	..	44	22,706	272	22,978
Yungnulgra	3	2	..	3	..	1	9	13,530	4,426	17,956
Fitzgerald	1	1	..	1	..	..	3	640	80	720
Ularara	3	..	..	3	1	..	7	5,803	1	5,804
Yantara	5	1	..	..	..	..	6	5,445	40	5,485
Delalah	..	..	..	1	..	..	1	360	....	360
Thoulcanna	1	..	..	3	..	..	4	2,730	....	2,730
Wentworth	33	5	2	14	..	1	55	69,752	748	70,500
Tara	2	..	1	11	1	..	15	39,737	7,130	46,867
Windeyer	3	1	..	7	..	..	11	27,057	4	27,061
Perry	4	..	..	6	..	1	11	42,933	120	43,053
Menindie	2	..	..	3	..	..	5	4,246	....	4,246
Livingstone	6	..	..	8	..	1	15	14,328	320	14,648
Yancowinna	133	56	2	17	2	..	210	12,169	1,426	13,595
Tandora	3	..	..	6	..	..	9	3,341	....	3,341
Farnell	1	..	..	3	..	..	4	3,182	....	3,182
Mootwingee	2	1	..	9	..	..	12	7,661	80	7,741
Evelyn	3	3	..	5	..	..	11	5,224	290	5,514
Poole	..	..	..	1	..	..	1	120	....	120
Tongowoko	3	..	..	4	..	..	7	2,062	....	2,062
Total	498	143	23	389	30	16	1,099	1,632,733	132,961	1,765,694

portion of land alienated is only 2·13 per cent. of the total area
trict, being an aggregate of 1,765,694 acres out of 82,705,080
h the division is estimated to contain. Of this area, 1,632,733
in the occupancy of the landowners, and only 132,961 acres are
r private lease, this kind of tenure being principally met with
unties of Caira, Narran, Waljeers, Clyde, Franklin, and Tara.
number of holdings is 1,099, of which 498 are freehold; 143
nted properties; 23 partly freehold and partly private leasehold;
olds to which considerable areas of Crown lands are attached;
rented holdings with Crown lands attached; and 16 freeholds
private rented and Crown lands attached. The average area
ed holdings for the whole western division is 1,607 acres, the
many counties, owing to the small number of holdings, being
In Waljeers it reaches 11,912 acres; in Franklin, 6,078 acres;
,460 acres; in Manara, 4,418 acres; and in Perry, 3,914 acres.
ge in Finch is 3,432 acres; in Tara, 3,124 acres; in Windeyer,
es; in Clyde, 2,398 acres; in Landsborough, 2,278 acres; in
2,021 acres; in Yungnulgra, 1,995 acres; in Kilfera, 1,859
Killara, 1,781 acres; in Mossgiel, 1,410 acres; in Blaxland,
es; in Wentworth, 1,282 acres; and in Irrara, 1,007 acres.
in it is 1,001 acres; diminishing in the other counties from
in Yanda to 120 acres in Poole; while in Yancowinna (in the
ill District) there are 210 holdings averaging 65 acres each.
ne holding of 40 acres in Barrona. The land is used purely
al purposes, except in the vicinity of townships, where market-
and fruit-growing are carried on, principally by Chinese.

a of alienated land enclosed in this division is 1,699,879 acres;
losed, 65,815 acres. In cultivation there is an area of 10,068
y 539 acres of which are tilled by tenants. The average area
states over 10,000 acres in extent is 34,002 acres.

ldings on the western plains may be classified as follows :—

Holdings.	Alienated Holdings.	Area of Holdings.		Area in Cultivation.	
		Total.	Proportion to Total Area of District.	Total.	Proportion to Area of Holdings.
	No.	acres.	per cent.	acres.	per cent.
s	357	1,232	0·07	260	21·10
cres	359	49,520	2·81	1,998	4·03
0 acres.........	181	121,870	6·90	2,435	2·00
,000 acres ...	170	505,016	28·60	3,835	0·76
sand upwards	32	1,088,056	61·62	1,540	0·14
l	1,099	1,765,694	100·00	10,068	0·57

The area of Crown lands occupied in this division is very large, there being no less than 72,975,600 acres under various forms of lease. Under homestead lease there are 10,529,438 acres. There is a small area of 437,455 acres under conditional lease, granted under the Act of 1884, but this form of lease is no longer obtainable in the western division. The number of lessees of Crown lands is 1,618, of whom 435 occupy Crown lands in addition to their alienated holdings, while 1,183 occupy Crown lands only. The value of improvements is returned at £4,859,946—an average of about 1s. 4d. per acre occupied.

The total area of alienated lands and Crown lands occupied is 74,741,294 acres, which is all devoted to pastoral pursuits with the exception of 18,915 acres under crop. The total area of the counties of the western plains is computed at 82,705,080 acres, and the area remaining unoccupied or unalienated is, therefore, not quite 8,000,000 acres.

AREA OF HOLDINGS.

It will be gathered from an analysis of the figures which have been given that settlement in New South Wales has hitherto tended towards the concentration into comparatively few hands of the lands alienated to a large number of individual selectors, and that in the great majority of cases the owner of the land is also the occupier. Tenancy, as understood in older settled communities, has made comparatively little progress, 90·19 per cent. of the land alienated being yet in the occupancy of the proprietors themselves, or an area of 39,204,694 acres; whilst only 4,262,518 acres, or 9·81 per cent., are held under lease from the freeholders.

Below will be found the number of holdings of various sizes throughout the colony, distinguishing freehold from rented land. It will be understood that here, as elsewhere in this chapter, though reference is made to holders who occupy Crown lands in addition to alienated lands, the area of such Crown lands is not considered in treating of the size of the holdings:—

Size of Holdings.	Number of Holdings.						
	Freehold.	Private Rented.	Partly Freehold & partly Private Rented.	Freehold, with Crown Lands attached.	Private Rented, with Crown Lands attached	Partly Freehold, partly Private Rented, partly Crown Lands.	Total.
1 to 30 acres	10,656	5,858	859	139	24	11	17,547
31 to 400 acres	17,846	7,270	2,081	5,069	207	268	32,741
401 to 1,000 acres	3,195	707	667	2,665	51	232	7,517
1,001 to 10,000 acres	1,561	253	438	1,926	42	446	4,666
10,001 acres and upwards	69	5	26	455	3	114	672
Total	33,327	14,093	4,071	10,254	327	1,071	63,143

The alienated area of the holdings referred to in the table just given, whether freehold or rented, will be found in the figures subjoined, which also show the percentage of alienated land to be found in the holdings of each specified size, as well as the proportion each size of holding, whether freehold or rented, bears to the total area alienated :—

Size of Holdings.	Area of Holdings.			Proportion to Total Alienated Area of the Colony.		
	Freehold.	Rented.	Total.	Freehold.	Rented.	Total.
	acres.	acres.	acres.	℘ cent.	℘ cent.	℘ cent.
1 to 30 acres	91,546	60,975	152,521	0·21	0·14	0·35
31 to 400 acres	3,745,206	1,105,778	4,850,984	8·62	2·54	11·16
401 to 1,000 acres	4,042,169	717,009	4,759,178	9·30	1·65	10·95
1,001 to 10,000 acres ...	10,733,823	1,540,483	12,274,306	24·69	3·55	28·24
10,001 acres and upwards	20,591,950	838,273	21,430,223	47·37	1·93	49·30
Total...............	39,204,694	4,262,518	43,467,212	90·19	9·81	100·00

The above figures strikingly illustrate the present condition of colonization in New South Wales, and their meaning should not be lost sight of by those who watch with attention the various phases of settlement in this country. The proportion of land in holdings less than 30 acres in extent is only 0·35 per cent. of the total area of land alienated in the colony, and represents an aggregate of 152,521 acres out of a total of 43,467,212 acres; this small acreage consists of 17,547 holdings, each occupying an average of 8·7 acres. Holdings between 31 and 400 acres in extent number 32,741, with an aggregate area of 4,850,984 acres, or 11·16 per cent. of the area alienated in the colony, giving an average of 148 acres per holding. It is in this category that a great portion of the land devoted to cultivation is to be found. In areas between 401 and 1,000 acres are to be found 7,517 estates, the number decreasing rapidly as the area increases, aggregating in all 4,759,178 acres, or 10·95 per cent. of the area alienated, giving each an average of 633 acres. The tendency just noted becomes still more marked in the holdings between 1,001 and 10,000 acres in extent, their number being only 4,666, whilst they aggregate 12,274,306 acres, or 28·24 per cent. of the total area alienated in the colony, giving an average of

2,631 acres per holding. The climax is reached, however, in the holdings of more than 10,000 acres in extent. Of these there are but 672, aggregating 21,430,223 acres, or 49·30 per cent. of the whole area alienated from the Crown, each averaging an area of 31,890 acres.

SETTLEMENT AND AGRICULTURE.

Some remarks as to the relative state of agriculture and of settlement on the alienated rural lands of the colony cannot fail to be of interest, especially when read in conjunction with the preceding figures. The following table deals with this question, and the figures carry with them their own explanation :—

Size of Holdings.	Alienated Holdings.	Area Alienated.		Area Cultivated.	
		Total.	Proportion to area of Colony.	Total.	Proportion to Area Alienated.
	No.	acres.	per cent.	acres.	per cent.
1 to 30 acres	17,547	152,521	0·08	53,603	35·14
31 to 400 acres	32,741	4,850,984	2·44	649,402	13·39
401 to 1,000 acres	7,517	4,759,178	2·39	366,903	7·71
1,001 to 10,000 acres	4,666	12,274,306	6·17	404,759	3·30
10,001 acres and upwards	672	21,430,223	10·78	149,051	0·70
Total	63,143	43,467,212	21·86	1,623,718	3·74

Although the highest proportion of land cultivated in any of these series, when compared with the total area alienated in the colony, is found in holdings from 31 to 400 acres in extent, yet when compared with the aggregate area alienated in the series itself it represents only 13·39 per cent. of it; whilst on the smaller holdings, less than 31 acres in extent, as much as 35·14 per cent. of the area alienated is under cultivation. The proportion considerably decreases as the higher areas are reached, being reduced to 0·70 per cent. in those over 10,000 acres.

From the table given on page 300, some interesting information may be gleaned with regard to the proportion of the number of owners of land who still occupy their freeholds, those who reside on rented lands, and those who occupy, in addition to their freeholds, lands rented either from private owners or from the Crown; but a more comprehensive view of these two phases of settlement may be obtained by an examination of the following table, in which the holdings are divided into a greater number of categories according to their sizes :—

Size of Holdings.	Holdings consisting of—							Total Area Alienated.
	Freehold Land.	Private Rented Land.	Partly Freehold & partly Private Rented Land.	Freehold Land, with Crown Lands attached.	Private Rented Land, with Crown Lands attached.	Partly Freehold, partly Private Rented & partly Crown Lands.	Total.	
	No.	No.	No.	No.	No.	No.	No.	acres.
1 to 5 acres	5,780	2,920	281	87	8	2	9,078	24,014
6 to 15 acres	3,028	1,615	315	29	11	6	5,004	48,730
16 to 30 acres	1,848	1,323	263	23	5	3	3,465	79,777
31 to 50 acres	3,984	1,864	249	597	31	4	6,729	280,931
51 to 100 acres	4,655	2,327	466	958	65	28	8,499	673,958
101 to 200 acres	4,901	1,816	685	1,394	56	82	8,934	1,356,048
201 to 300 acres	2,300	777	420	938	24	81	4,540	1,150,489
301 to 400 acres	2,006	486	261	1,182	31	73	4,039	1,389,558
401 to 500 acres	900	239	186	515	10	44	1,894	866,194
501 to 600 acres	642	133	146	329	7	39	1,296	720,444
601 to 700 acres	839	150	117	1,227	23	39	2,395	1,544,148
701 to 800 acres	334	82	85	248	6	43	798	599,676
801 to 900 acres	252	46	67	168	3	29	565	484,732
901 to 1,000 acres.........	228	57	66	178	2	38	569	543,984
1,001 to 1,500 acres.......	650	111	154	629	15	100	1,668	2,069,729
1,501 to 2,000 acres.......	295	53	98	362	11	70	889	1,567,103
2,001 to 3,000 acres.......	305	52	79	354	4	90	884	2,186,173
3,001 to 4,000 acres.......	137	11	37	194	3	61	443	1,543,107
4,001 to 5,000 acres.......	55	7	22	121	2	43	250	1,133,420
5,001 to 7,500 acres.......	75	10	35	164	6	44	334	2,048,761
7,501 to 10,000 acres	44	9	13	102	1	29	198	1,726,013
10,001 to 15,000 acres	24	3	11	130	2	39	209	2,612,243
15,001 to 20,000 acres	17	1	3	79	....	19	119	2,079,722
20,001 to 30,000 acres	12	....	8	88	1	26	135	3,350,032
30,001 to 40,000 acres	6	1	2	46	....	9	64	2,269,961
40,001 acres and upwards	10	....	2	112	....	21	145	11,118,265
Total	33,327	14,093	4,071	10,254	327	1,071	63,143	43,467,212

From the above it will be seen that the total number of occupiers of freeholds only is 33,327, the proportion to the total number of occupiers being fairly constant in each size of holdings. Absolute tenants of private lands, who number 14,093, are far more numerous in the smaller classes of holdings, and rapidly diminish both in number and in proportion as the estates become larger. The same is the case with regard to holders of freehold and private rented land, who number only 4,071. The persons who possess freeholds with Crown lands attached number 10,254, and 45 per cent. of the holdings over 1,000 acres in extent are in this category. Occupiers whose holdings are partly made up of private rented lands and partly of Crown lands only number 327 altogether ; while owners of freehold, who are Crown tenants and private tenants at the same time, show a total of 1,071.

There are 2,341 occupiers of Crown lands only, not connected with alienated holdings. The total area of alienated holdings over 1 acre in extent in the colony is 43,467,212 acres, and of the Crown lands occupied

117,135,695 acres, making a total of 160,602,907 acres. Of this area, 158,943,190 acres are used for grazing and dairying, and 1,659,717 acres for agriculture. The total value of improvements on Crown lands is returned at £9,108,351—equal to 1s. 5·7d. per acre.

The figures in regard to holdings represent rural settlement only, and account for 43,467,212 acres out of a total of 45,257,468 acres that have been alienated. The balance of 1,790,256 acres represents lands in cities and towns, and rural lands abandoned, to all appearances, by their owners. The lands of the colony are held by 136,000 persons, the owners being almost equally distributed between the towns and the country.

LABOUR SETTLEMENTS.

In June, 1893, an Act was passed to promote the establishment of labour settlements, thus enabling persons without capital to provide for themselves and their families. The land may be leased for twenty-eight years, with a right of renewal, and loans of money are granted to enable the settlers to carry on operations, the first repayment of the loan and the rent of the land not being required until four years from the date of the lease. During 1894 an Amending Act was passed, empowering the Minister to double the amount of loan authorised under the original Act. The control of each establishment is left in the hands of a Board. Funds are provided by the Treasury from which the Board may, with the approval of the Minister, grant the following sums:—To each enrolled member with a family dependent on him, not exceeding £50; to married persons without family, a sum not exceeding £40; and to each member unmarried, a sum not exceeding £30. At the close of the year 1896, two settlements were in existence, viz., Wilberforce and Bega. The Pitt Town settlement, which had been established in June, 1893, with an area of 2,100 acres, was converted into a Casual Labour Farm on the 17th June, 1896. The Bega settlement was established in July, 1893, the area being 1,360 acres and the population consisting of 20 men, 20 women, and 74 children, or a total of 114. The improvements are valued at £1,557, and the amount of loans is £1,746. In August, 1893, the Wilberforce settlement was formed, and now contains 882 acres, finding home and employment for 18 men and 15 women, with 53 children, or a total population of 86. The value of improvements is £2,107, and the amount of loans advanced £2,480.

AGRICULTURAL PRODUCTION.

THE soil of New South Wales is as varied as the climate is diversified, and within the boundaries of the colony may be cultivated not only the productions of the temperate regions, but even those of cold and of sub-tropical latitudes. Except in the inaccessible or rugged portions of the mountain chains and the more arid regions of the north-western districts, the soil is almost everywhere susceptible of cultivation. The area absolutely unfit for occupation of any sort has been roughly estimated at less than 5,000,000 acres; and it may be said that the greater part of the land adapted for settlement is in some form or other capable of being cultivated. But success in tillage in the colony is altogether independent of the mere fitness of the soil for cultivation. An irregular rainfall and a want of uniformity in the seasons, which are the chief characteristics of the climate of a large part of the interior, have impeded the advance of agriculture in the great western plains. And to these obstacles there may be added the cost of transport, which, owing to the great distance that produce has to be carried by land, has told greatly against cultivation for export—a resource which must be the chief hope of the farmers in a country so sparsely populated as New South Wales, and consequently one affording such a small home market.

CULTIVATION.

The records relating to the farming operations of the early days of the colony are necessarily both imperfect and meagre. Among other items of interest, it is recorded that the first settler, a man named James Ruse, entered on his farm of 30 acres at Parramatta on the 25th February, 1789; and that the first free emigrant to undertake the cultivation of the soil of the colony was a German, named Philip Schaffer, who came out with the First Fleet as an agricultural superintendent, chiefly with a view to attempt the culture of tobacco on behalf of the Government. The first Government farm was an area of 9 acres at Farm Cove, the designation of which still preserves a memory of this early essay in husbandry, as does that of Garden Island, where one of the first attempts in fruit-growing was made. The character of the soil in the vicinity of Farm Cove was, however, by no means favourable to agriculture, and the crop produced was consequently very inadequate.

An agricultural settlement was next formed at Rosehill, now known as Parramatta; and in November, 1791, there were here upwards of 700 acres of land under cultivation. During the same year it is recorded that no less than 1,000 bushels of wheat, as well as 500 bushels of maize, were reaped on Norfolk Island. At the close of the year 1792 there were under cultivation in New South Wales 1,186 acres with maize, 208 with wheat, and 24 with barley; 121 acres were laid out as gardens; and 161 acres had been cleared ready for the plough. In 1800 the total quantity of land under cultivation amounted to 7,677 acres. In 1803 no less than 125,476 acres were occupied by the Government, or had been granted to individuals; 16,624 acres had been cleared, 7,118 acres were under wheat, the average yield being 18 bushels to the acre; and 5,279 acres were under barley, maize, and other crops. Owing partly to disastrous floods, and partly to the state of political uncertainty which prevailed during the next few years, the area in cultivation decreased, and when Governor Macquarie came to the colony in 1810, only 7,615 acres of land were in tillage, while when he left in 1821 this area had increased to 32,267 acres. With the crossing of the Blue Mountains the area of settlement was largely widened, but agriculture was for many years confined to the coastal zone and the table-land. At the present time an area comprising nearly 2,044,000 acres, including grass-lands, is in cultivation; while if the area prepared and cleared for the next season's agricultural operations be included, the total reaches 2,418,764 acres. The area under crops, properly so called, during the year ended March, 1897, was 1,659,717 acres, and that under artificially-sown grasses, 384,016 acres, or a total area in cultivation of 2,043,733 acres.

The progress of cultivation during the last twenty years is shown in the table given below. It will be seen that the increase in the area in cultivation during the year ended March, 1897, was no less than 394,271 acres, and far exceeded that of any other year within the period for which the figures are supplied :—

Year ended 31st March.	Area in cultivation, including sown grass-lands.		Year ended 31st March.	Area in cultivation, including sown grass-lands.	
	Total.	Average per inhabitant.		Total.	Average per inhabitant.
	acres.	acres.		acres.	acres.
1878	546,556	0·9	1888	1,048,305	1·0
1879	613,642	0·9	1889	999,298	1·0
1880	635,641	0·9	1890	1,164,475	1·1
1881	710,337	0·9	1891	1,241,419	1·1
1882	645,068	0·8	1892	1,179,621	1·0
1883	733,582	0·9	1893	1,372,007	1·2
1884	789,082	0·9	1894	1,509,404	1·2
1885	852,017	0·9	1895	1,688,542	1·4
1886	868,093	0·9	1896	1,649,462	1·3
1887	975,471	1·0	1897	2,043,733	1·6

Only about 0·8 per cent. of the total area of New South Wales is actually devoted to the growth of agricultural produce, and if the small extent of land upon which permanent artificial grasses have been sown for dairy-farming purposes be added to the area under crops, the proportion reaches only 1·0 per cent. of the total area of the colony, and represents about 1·6 acres per head of its population. The proportion of the total cultivated area, computed on the total area of alienated rural lands, is about 3·8 per cent.

An impression appears to prevail that in this country purchased lands are used by the settlers for agricultural purposes, whilst Crown leases only are used for grazing; but such is far from being the case, as the great majority of selectors are only graziers in a small way of business, and agricultural settlements, pure and simple, are confined to very limited areas in the alluvial lands of the lower valleys of the coastal rivers, and around two or three centres in the middle division of the tableland. Of the total area under crops, 1,221,141 acres, or 73·58 per cent., were cultivated by the owners; while 438,576 acres, or 26·42 per cent., were cultivated by tenant occupiers, including Crown land lessees. If the area under permanent grasses were added, the proportion of cultivated leased lands would be somewhat higher, as a number of the dairy farms in the southern coast district, where grass is largely sown, are held on lease.

New South Wales is essentially a pastoral country, and with the exception of a few districts where agriculture has taken a hold, the cultivation of the soil is secondary to stock-breeding. This circumstance is by no means due to lack of good land, and it cannot be ascribed to the defects of the climate; for the colony possesses land the capabilities of which are unsurpassed for the production of any kind of agricultural produce, and its climate is certainly superior to that of other parts of the Australian continent where the cultivation of cereals has been carried on for years past. Taken as a whole, the yield of crops in New South Wales is larger than that obtained in any other continental colony, but, at the same time, communication with the metropolitan market is much more difficult. Agriculture cannot be developed unless access to the markets be rendered both easy and cheap, and to secure this desirable end in a country so vast, and with so small a population, is a matter not easily accomplished. Up to the present, stock-rearing has maintained the position of an occupation which, while entailing considerably less physical labour and personal inconvenience, has yielded results far more remunerative than those of agriculture; but as population increases, and there remains no more land to be taken up for grazing purposes, agricultural pursuits must be resorted to under the pressure of an ever-increasing demand. As it is, however, the land devoted to agriculture affords permanent employment to a fair proportion of the working population of the province. The area actually under crop varies, owing to a variety of circumstances, but there is a steady increase in the surface cleared for utilisation in this way.

The number of persons reported as employed in agricultural and dairy-farming pursuits during the year ended March, 1897, was 90,814, of whom 16,928 were females. Of the total number, 62,200 males and 4,980 females were engaged in purely farming operations, whilst the dairy-farming industry gave employment to 11,686 males and 11,948 females. If to these be added 30,323 persons engaged in pastoral pursuits, it is estimated that rural occupations absorb the energies of 121,137 persons. As the geographical distribution of employment in these pursuits presents interesting features, the numbers of persons employed in the great divisions of the colony, according to the classification adopted, are shown below. It must be understood that the number given as engaged in dairy-farming does not include 702 hands employed in town factories:—

Division.	Persons employed in Agricultural Pursuits principally.					Persons employed in Pastoral Pursuits.	Persons employed in Rural Occupations.
	Agriculture.		Dairy Farming.		Total.		
	Males.	Females	Males.	Females.			
The Coast—							
Northern District.........	10,537	478	2,191	2,092	15,298	1,489	16,787
Hunter and Hawkesbury Valleys	6.507	438	882	1,167	8,994	969	9,963
County of Cumberland and Metropolis........	7,138	330	518	330	8,316	201	8,517
Southern District	4,340	142	5,775	3,404	13,661	816	14,477
Total	28,522	1,388	9,366	6,993	46,269	3,475	49,744
The Table-land—							
Northern District.........	5,227	372	239	753	6,591	2,992	9,583
Central ,, ...	9,752	1,095	554	1,660	13,061	3,502	16,563
Southern ,, ...	9,378	614	1,310	1,942	13,244	5,046	18,290
Total	24,357	2,081	2,103	4,355	32,896	11,540	44,436
The Western Slope—							
Northern District.........	1,528	151	39	162	1,880	3,825	5,705
Central ,, ...	888	122	12	22	1,044	1,969	3,013
Southern District and Valley of the Murray	6,476	1,144	125	385	8,130	4,640	12,770
Total	8,892	1,417	176	569	11,054	10,434	21,488
The Western Plains	429	94	41	31	595	4,874	5,469
Grand Total	62,200	4,980	11,686	11,948	90,814	30,323	121,137

In order to appreciate the proper bearing of the figures in the above ble, it is advisable to consider them in conjunction with the figures owing the area brought into cultivation within each division, and ese will be found appended :—

Division.	Total Area occupied.	Area under Crops.	Area Cleared and Prepared for Cultivation.	Area under Permanent Artificially-sown Grasses.	Area Ring-barked and Partially Cleared.
e Coast—	acres.	acres.	acres.	acres.	acres.
Northern District....	4,005,444	149,946	19,430	105,958	732,135
Hunter and Hawkesbury Valleys.........	1,952,806	68,156	5,123	7,938	822,799
County of Cumberland and Metropolis	475,665	46,633	3,129	2,645	30,600
Southern District.....	1,994,078	53,408	8,196	152,529	645,706
Total	8,427,993	318,143	35,878	269,070	2,231,240
e Table-land—					
Northern District.....	10,262,049	112,679	31,056	12,509	2,239,126
Central ,, ...	8,481,809	286,689	71,229	39,690	2,856,157
Southern ,, ...	12,520,073	309,246	66,288	36,859	4,269,356
Total	31,263,931	708,614	168,573	89,058	9,364,639
e Western Slope—					
Northern District.....	15,645,622	25,341	13,347	676	3,162,289
Central ,, ...	9,675,212	41,182	10,899	2,211	3,248,652
Southern District, and Valley of the Murray	20,848,855	547,522	144,515	22,722	5,025,330
Total	46,169,689	614,045	168,761	25,609	11,436,271
e Western Plains ...	74,741,294	18,915	1,819	279	2,954,058
Grand Total......	160,602,907	1,659,717	375,031	384,016	25,986,208

Putting together the figures in the tables just given, it will be seen at the average area to each person engaged in rural pursuits is 326 acres, ranging from 55 acres in the metropolitan county to 13,666 res in the western plains. The average for each district is shown low, and though a close distinction cannot be drawn between the tual area affording employment to a man in each of the three main visions of farming, it will be apparent enough that the districts voted to market-gardening, fruit-growing, dairying, cereal-farming, d grazing offer most employment per unit of area in the order given. art from the metropolitan district, which contains numerous orchards and market-gardens, the South Coast Districts surpass all the others with one person to every 137 acres, followed by the Hunter River District, with one to every 196 acres, and the North Coast, with one to every 238 acres. Only two other districts fall below the proportion of one person to 1,000 acres.

Division.	Area occupied.	Persons employed.	Area to each person employed.
The Coast—	acres.	No.	acres.
Northern District	4,005,444	16,787	238
Hunter and Hawkesbury Valleys	1,952,806	9,963	196
County of Cumberland and Metropolis	475,665	8,517	55
Southern District	1,994,078	14,477	137
Total	8,427,993	49,744	169
The Table-land—			
Northern District	10,262,049	9,583	1,071
Central District	8,481,809	16,563	512
Southern District	12,520,073	18,290	684
Total	31,263,931	44,436	703
The Western Slope—			
Northern District	15,645,622	5,705	2,216
Central District	9,675,212	3,013	3,211
Southern District and Valley of the Murray	20,848,855	12,770	1,632
Total	46,169,689	21,488	2,148
The Western Plains	74,741,294	5,469	13,666
Grand Total	160,602,907	121,137	1,326

The total area of New South Wales is 198,634,880 acres. Exclusive of all rivers, lakes, and streams, the area is estimated at 195,882,150 acres, of which 43,467,212 acres of alienated land, and 117,135,695 acres of Crown land, making a total of 160,602,907 acres, were devoted to rural industries on the 31st March, 1897. Of this area, 13,623,085 acres of alienated land and 12,363,123 acres of Crown land were ring-barked and partly cleared; 333,229 acres of alienated land and 50,787 acres of Crown land were under permanent artificially-sown grasses; 375,031 acres of alienated land were cleared and prepared for cultivation; and 1,623,718 acres of alienated land and 35,999 acres of Crown land making a total of 1,659,717 acres, were under crops. Cultivation is carried on throughout the colony in patches scattered over vast stock-grazing areas. The best lands for producing cereals are still, and will probably remain for many years, in the hands of the pastoralists; whilst farmers have not always settled on the kind of country best suited for the cultivation of their crops. It is the settler, not the soil, that has determined this point. It becomes, therefore, difficult to divide the country into agricultural lands, as distinguished from those purely pastoral in character.

The area devoted to each of the principal crops during the agricultural year ended 31st March, 1897, with the quantity or value of the produce harvested, will be found below :—

Description of Crop.	Area.	Production.	Description of Crop.	Area.	Production.
	acres.			acres.	
Wheat—			Sorghum for Green Food	15,898	......
Grain	866,112	8,853,445 bush.	Orangeries—		
Hay	161,136	118,337 tons	Productive	8,359	487,158 cases
Maize—			Non-bearing	4,130	......
Grain	211,382	5,754,217 bush.	Grape-vines—		
Green Food	10,460	......	For wine-making	4,608	794,256 galls.
Oats—			For table use	2,693	2,885 tons
Grain	39,530	834,633 bush.	Non-bearing	760	......
Hay	133,946	142,957 tons	Market-gardens	6,824	£168,353
Green Fodder	5,451	......	Pumpkins and Melons	5,017	17,940 tons
Lucerne and Sown Grasses—			Millet—		
Hay	30,512	71,467 tons.	Grain	621	7,627 bush.
Green Fodder	37,357	......	Green Fodder	2,065	......
Sugar-cane—			Rye—		
Cut this year	18,194	320,276 tons.	Grain	1,487	22,000 bush.
Not cut	12,859	......	Green Fodder	625	......
Potatoes	31,170	84,214 tons.	Turnips	345	1,642 tons
*Fruit Orchards—			Tobacco	2,744	27,468 cwt.
Productive	24,031	£159,715	Peas and Beans	521	4,410 bush.
Non-bearing	8,524	......	Mangold-wurzel	72	349 tons
Barley—			Onions	248	535 ,,
Grain	6,453	110,340 bush.	All other Crops	1,352	£17,519
Hay	1,615	2,141 tons			
Green Fodder	2,616	......	Total	1,659,717	......

* Excluding vines and oranges.

The quantities of agricultural produce harvested during the year ended March, 1897, and the value of each crop, are given in the following statement, the values being the average for the whole colony at the time the harvest was gathered :—

Crop.	Production or Area.	Value.	Crop.	Production or Area.	Value.
		£			£
Wheat	8,853,445 bush.	1,881,377	Tobacco	27,468 cwt.	41,202
Maize	5,754,217 ,,	575,422	Grapes	2,885 tons.	40,390
Barley	110,340 ,,	15,171	Oranges and Lemons	487,158 cases.	97,432
Oats	834,633 ,,	83,464	Orchards	24,031 acres.	159,715
Other Grain	29,627 ,,	4,444	Market-gardens	6,824 ,,	168,353
Hay	334,902 tons.	1,339,608	Peas and Beans	13,240 bush.	1,650
Straw	36,352 ,,	72,704	Pumpkins & Melons	17,940 tons.	44,850
Green Food	74,472 acres	251,652	Wine	794,256 gall.	59,570
Potatoes	84,214 tons.	294,749	Brandy	7,134 ,,	1,425
Onions	535 ,,	3,745	Unspecified Crops	1,352 acres.	17,519
Turnips and Mangold-wurzel	1,991 ,,	2,986			
Sugar-cane	320,276 ,,	164,141	Total value £		5,321,569

The area under crops, the value of the agricultural produce, and the average value per acre for the year 1871, and for each year since 1881, are given below :—

Year ended 31st March.	Area under crops.	Total Value of Produce.	Average Value per acre.		
	acres.	£	£	s.	d.
1871	397,389	2,220,000	5	11	9
1881	629,180	3,829,660	6	1	9
1882	583,868	4,194,346	7	3	8
1883	660,227	3,304,891	5	0	1
1884	702,131	3,806,182	5	8	5
1885	735,021	2,836,697	3	17	2
1886	737,701	3,375,882	4	11	6
1887	837,468	3,943,645	4	14	2
1888	855,627	4,151,692	4	17	1
1889	798,966	3,298,759	4	2	7
1890	947,072	4,459,861	4	14	2
1891	852,704	4,136,887	4	17	0
1892	846,383	3,584,490	4	4	8
1893	1,010,727	3,961,367	3	18	5
1894	1,206,992	3,861,771	3	4	0
1895	1,325,964	3,395,571	2	11	3
1896	1,348,600	4,066,946	3	0	4
1897	1,659,717	5,321,569	3	4	2

WHEAT.

In the early days of settlement the Hawkesbury River Valley, and the country adjacent to the towns of Parramatta, Liverpool, Penrith, Camden, and Maitland, were the principal centres of wheat cultivation. Unskilful farming, and the consequent exhaustion of the soil, with the attendant evils of rust, smut, and other diseases, caused these districts to be abandoned little by little as wheat-country, and on the discovery of the Bathurst Plains their importance at once ceased. The districts of Bathurst, Goulburn, Gundagai, Tumut, Young, Monaro, and New England were each in turn occupied by agriculturists, and the suitability of their soil and climate, as well as that of the whole of the mountain plateau, for the growth of this cereal became definitely established. Subsequently the cultivation was extended in a south-westerly direction to the Riverina Plains, where at present it is receiving marked attention, as will be seen from the following table, showing the distribution of the area cut for grain during the agricultural year ended March, 1897, with the production and average yield of each of the great divisions of the colony :—

Division.	Area cut for grain.	Yield.	
		Total.	Per acre.
	acres.	bushels.	bushels.
The Coast—			
Northern District	1,286	19,351	15·0
Hunter and Hawkesbury Valleys	3,065	44,071	14·4
County of Cumberland and Metropolis	86	1,687	19·6
Southern District	1,147	16,909	14·7
Total	5,584	82,018	14·7
The Table-land—			
Northern District	55,585	803,909	14·5
Central ,,	147,604	1,632,617	11·7
Southern ,,	195,463	1,851,152	9·5
Total	398,652	4,287,678	10·8
The Western Slopes—			
Northern District	11,150	137,995	12·4
Central ,,	19,283	125,229	6·5
Southern District and Valley of the Murray	429,887	4,213,668	9·8
Total	460,320	4,476,892	9·7
The Western Plains	1,556	6,857	4·4
Grand Total	866,112	8,853,445	10·2

It is interesting to note that agriculture is gaining ground in those districts where the greatest number of the huge freehold estates, accumulated by pastoralists under the auction sales and improvement clauses of the Land Act of 1861, are situated. It is in the valleys of the Murray, the Murrumbidgee, and the Lachlan that the struggle between squatter and selector has been fiercest, and it is there that the most remarkable increase in wheat-growing and in agriculture generally is now exhibited. This point is illustrated by the following statement, which shows the increase or decrease in the total area cultivated and in the land under wheat in each of the divisions of the colony during the ten years between March, 1887, and March, 1897 :—

Division.	Total area under Crops.		Area under Wheat for Grain and Hay.	
	1887.	1897.	1887.	1897.
	acres.	acres.	acres.	acres.
The Coast—				
Northern District	96,214	149,946	30	1,336
Hunter and Hawkesbury Valleys	69,166	68,156	6,236	3,800
County of Cumberland and Metropolis	16,084	46,633	68	689
Southern District	43,177	53,408	1,735	1,896
Total	224,641	318,143	8,069	7,721
The Table-land—				
Northern District	71,254	112,679	38,385	58,719
Central ,,	205,806	286,689	123,272	178,146
Southern ,,	152,666	309,246	93,148	219,365
Total	429,726	708,614	254,805	456,230
The Western Slope—				
Northern District	12,869	25,341	9,504	15,566
Central ,,	31,754	41,182	26,296	35,769
Southern District and Valley of The Murray	122,371	547,522	106,423	494,121
Total	166,994	614,045	142,223	545,456
The Western Plains	7,323	18,915	6,703	17,841
Grand Total	828,684	1,659,717	411,800	1,027,248

The figures just given show clearly that by far the larger proportion of the increase, both in the area devoted to wheat and in general cultivation, has taken place in the Riverina district. Indeed, in some of the other parts of the country the additional land devoted to cereals has been, on the whole, comparatively small; while in the Hunter and Hawkesbury valleys there has been a falling off. In the following table the area under wheat harvested for grain and the yield in bushels are given. The periods selected are, as in the former table, the years ended March, 1887 and 1897 :—

Division.	1887.		1897.	
	Area for Grain.	Production.	Area for Grain.	Production.
	acres.	bushels.	acres.	bushels.
The Coast—				
Northern District	26	469	1,286	19,351
Hunter and Hawkesbury Valleys	2,922	45,415	3,065	44,071
County of Cumberland	4	85	86	1,687
Southern District	314	5,506	1,147	16,909
Total	3,266	51,475	5,584	82,018
The Table-land—				
Northern District	32,379	486,246	55,585	803,909
Central ,,	111,672	1,973,431	147,604	1,632,617
Southern ,,	85,959	1,625,065	195,463	1,851,152
Total	230,010	4,084,742	398,652	4,287,678
The Western Slope—				
Northern District	5,485	76,072	11,150	137,995
Central ,,	18,360	358,822	19,283	125,229
Southern District and Valley of the Murray	80,444	1,295,639	429,887	4,213,668
Total	104,289	1,730,533	460,320	4,476,892
The Western Plains	165	2,094	1,556	6,857
Grand Total	337,730	5,868,844	866,112	8,853,445

The cultivation of wheat during the past thirty years has been very irregular. For some years prior to 1867 the area under crop had remained almost stationary at a little more than 125,000 acres. In 1867, however, the acreage increased to 175,000 acres, and eleven years later the area reaped for grain was practically the same, although during the intervening period it had fluctuated to the extent of 50,000 acres. Then more land was again laid under the cereal, and in 1879 the area increased to 233,252 acres. Since that time cultivation has been greatly extended, the maximum area cut for grain being reached in 1897 with 866,112 acres. Below will be found a statement showing the area under wheat for grain since 1868, with the total production and the average yield per acre :—

Year ended 31st March.	Area under Crop.	Yield.		Year ended 31st March.	Area under Crop.	Yield.	
		Total.	Average per acre.			Total.	Average per acre.
	acres.	bushels.	bushels.		acres.	bushels.	bushels.
1868	149,142	1,433,807	9·61	1884	289,757	4,345,437	15·00
1869	164,206	1,787,085	10·88	1885	275,249	4,271,394	15·52
1870	189,452	3,200,959	16·89	1886	264,867	2,733,133	10·45
1871	147,997	999,595	6·75	1887	337,730	5,868,844	17·37
1872	154,030	2,229,642	14·48	1888	389,390	4,695,849	12·06
1873	177,551	2,898,463	16·32	1889	304,803	1,450,503	4·75
1874	169,330	2,273,620	13·43	1890	419,758	6,570,335	15·65
1875	166,911	2,148,394	12·87	1891	333,233	3,649,216	10·95
1876	133,609	1,958,640	14·66	1892	356,666	3,963,668	11·11
1877	145,608	2,391,979	16·43	1893	452,921	6,817,457	15·05
1878	176,686	2,455,507	13·84	1894	593,810	6,502,715	10·95
1879	233,252	3,439,326	14·74	1895	647,483	7,041,378	10·88
1880	233,368	3,613,266	15·48	1896	596,684	5,195,312	8·71
1881	253,137	3,717,355	14·69	1897	866,112	8,853,445	10·22
1882	221,887	3,405,966	15·35				
1883	247,361	4,042,395	16·35	Average for 30 Years......			12·53

The great increase in the area under crop in 1897 shows that increased attention is being directed to the cultivation of wheat in New South Wales, and there is evidence that the yield is sufficient to make the crop payable. Hitherto the colony has lagged behind its neighbours in this important industry, but in the above table it has been shown that lack of capacity to produce a payable average has not been the cause of this tardiness in development. Taking the whole period of thirty years, it will be seen that the average yield has been 12·53 bushels to the acre. A yield of 15 bushels has not been uncommon, while in 1887 the average reached the comparatively high figure of 17·3 bushels. In 1895-6 many of the crops were ruined by the absence of rain, and the average of 8·71 bushels yielded in that year was the lowest obtained since 1867, with the exception of 6·75 bushels in 1871 and 4·75 bushels in 1889. The average yield in the following year was 1·5 bushel higher; but it was, at the same time, the second lowest since 1888-9.

Dividing the period of thirty years into quinquennial periods, the average yields per acre were as follow :—

Quinquennial period.	Average per acre.
1868–72	11·99 bushels.
1873–77	14·71 „
1878–82	14·89 „
1883–87	15·02 „
1888–92	11·27 „
1893–97	10·90 „

In spite of the lower averages for the last ten years, it may be said that from equal qualities of soil a better yield is now obtained than twenty years ago—a result due largely to improved farming; but at the same time it must not be lost sight of that the occurrence of rust, smut, and other forms of disease in wheat has been less frequent and less general of recent years.

If the average yield per acre be compared with the results obtained in the other Australasian colonies, it will be found that New South Wales occupies a satisfactory position, its average being exceeded by only one other province of continental Australia, viz., Queensland. Below will be found the average of each province, and the maximum and minimum obtained during the last ten years. It will be seen from the following table that in South Australia and Western Australia the season 1896-7 was the worst experienced during the decade, while the previous season was the worst experienced in Victoria in the course of the last ten years:—

Colony.	Yield in 1897.	Yield per acre during ten years, 1888-97.		
		Average.	Maximum.	Minimum.
	bushels.	bushels.	bushels.	bushels.
New South Wales	8,853,445	11·0	15·7 (1890)	4·8 (1889)
Victoria	7,076,022	8·6	11·1 (1891)	4·0 (1896)
Queensland	601,254	14·7	22·1 (1888)	0·9 (1889)
South Australia	2,804,493	5·9	7·9 (1890)	1·7 (1897)
Western Australia	243,927	11·0	14·2 (1890)	7·6 (1897)
Tasmania	1,286,330	17·5	20·2 (1889)	15·1 (1894)
New Zealand	5,926,523	23·8	27·8 (1896)	19·0 (1891)

Compared with the production of wheat in the majority of European countries, that of New South Wales will appear inconsiderable, both as regards the total quantity obtained, and the yield per acre. In the following table will be found returns from some of the chief wheat-growing countries of the world, showing the average production per acre of this cereal:—

Country.	Average yield per acre.	Country.	Average yield per acre.
	bushels.		bushels.
Denmark	31·1	Ontario	14·1
United Kingdom	29·3	Hungary	13·6
Norway	25·1	Italy	12·1
Belgium	21·5	United States	11·7
Holland	21·5	Quebec, Nova Scotia, and New Brunswick.	9·9
Manitoba	20·3		
Germany	18·8	Russia in Europe	4·6
France	16·9		
Austria	16·4	New South Wales (30 years)	12·5
British Columbia	15·0	Australasia (10 years)	9·1

DEFICIENCY OF WHEAT PRODUCTION.

In 1897, for the first time, the production of wheat in New South Wales almost equalled the consumption, and with a fairly good season it is probable that the following year's harvest will result in a surplus for export. The accompanying table has been prepared with a view to illustrate the state of the colony in this respect, and shows the total consumption of wheat, the home production, and the net deficiency for thirty-five years. In the column giving the total consumption, no account is taken of the quantity added to or taken from stocks, as the case may be; and the figures showing the total consumption and the average per head are exclusive of wheat required for seed. For each year the production for the twelve months ended March has been placed against the consumption for the year ended December, consequently, in 1896 a considerable deficiency is apparent. The effect of the harvest of the season 1896–7 will not be seen until the 1897 figures have been added to the table:—

Period or Year.	Total per annum.			Average per head per annum.		
	Apparent consumption.	Home production.	Apparent deficiency.	Apparent consumption.	Home production.	Apparent deficiency.
	bushels.	bushels.	bushels.	bushels.	bushels.	bushels.
1862–66	2,397,139	977,343	1,419,796	6·2	2·5	3·7
1867–71	3,038,512	1,712,619	1,325,893	6·4	3·6	2·8
1872–76	3,638,081	2,090,807	1,547,274	6·4	3·7	2·7
1877–81	4,415,178	2,802,310	1,612,868	6·4	4·0	2·4
1882–86	5,742,906	3,316,495	2,426,411	6·5	3·8	2·7
1887–91	7,159,762	3,896,907	3,262,855	6·6	3·6	3·0
1892	6,489,476	3,285,772	3,203,704	5·5	2·8	2·7
1893	7,656,374	5,947,851	1,708,523	6·3	4·9	1·4
1894	7,360,690	5,536,115	1,824,575	5·9	4·5	1·4
1895	7,305,786	6,079,755	1,226,031	5·8	4·8	1·0
1896	7,499,419	3,911,013	3,588,406	5·8	3·0	2·8

It will be seen from the statement last given, that, up to 1896, New South Wales was far from the position of being able to supply the wheat required for the food of its inhabitants, although from the following summary table it would seem that in this respect the country has made steady progress towards the independence in wheat supply which it nearly attained in 1897 :—

Period for which an average has been taken.	Average per head per annum.		
	Consumption.	Home production.	Deficiency.
	bushels.	bushels.	bushels.
1862–66	6·2	2·5	3·7
1867–71	6·4	3·6	2·8
1872–76	6·4	3·7	2·7
1877–81	6·4	4·0	2·4
1882–86	6·5	3·8	2·7
1887–91	6·6	3·6	3·0
1892–96	5·9	4·0	1·9

The deficiency for the five years covered by the period 1887-91 was 3 bushels per head, equivalent to 46 per cent. of the whole consumption. During the five years extending from 1892 to 1896 the consumption of wheat per head was 5·9 bushels, which is somewhat under the average; and the deficiency was reduced to 1·9 bushels per head. The probable requirements for the year 1897, reckoning the consumption at 5·9 bushels per head, exclusive of seed, will be about 7,737,000 bushels; the year's production has been 8,853,000 bushels; hence, after allowing for seed, the colony is compelled again to import, although only on a very limited scale, to supply the requirements of its population. In 1898 the requirements of the population will probably be about 8,000,000 bushels, and as it is believed that the area sown exceeds that of last season, and there seem to be fair prospects of a comparatively good harvest, it is anticipated that there will be a surplus available for export.

The average consumption of wheat in New South Wales, as shown above, amounts to 5·9 bushels per head—a rate which is higher than that of most countries the records of which are available for reference. The consumption includes what is used for all purposes except seed, a fact which must be borne in mind, as the quantity of flour used for the manufacture of biscuits and other articles, as well as for other than food purposes, is not inconsiderable.

WHEAT CROP OF THE WORLD.

The importance of Australasia in the wheat market of the world is not great, since, out of a total production of about 2,378 million bushels raised in 1896, only about 27 million bushels, or 1·1 per cent., were Australasian. The following statement shows the wheat harvest of the world during each of the last five years :—

Country.	1892.	1893.	1894.	1895.	1896.
Europe—	bushels.	bushels.	bushels.	bushels.	bushels.
Russia and Poland	256,710,000	359,873,000	383,862,000	333,479,000	343,877,000
France	301,293,000	277,980,000	343,113,000	348,280,000	335,881,000
Hungary	136,753,000	149,069,000	152,305,000	152,345,000	143,949,000
Italy	111,960,000	130,355,000	117,958,000	111,960,000	131,953,000
Germany	115,960,000	109,562,000	110,359,000	102,363,000	103,964,000
Spain	67,976,000	83,968,000	103,964,000	103,964,000	79,972,000
Roumania	58,379,000	58,379,000	42,386,000	65,978,000	68,975,000
United Kingdom	60,777,000	50,382,000	59,176,000	37,986,000	57,978,000
Bulgaria	41,586,000	33,986,000	35,988,000	45,982,000	49,982,000
Caucasia	67,996,000	65,177,000	59,980,000	63,976,000	43,984,000
Turkey	39,984,000	31,988,000	27,988,000	35,988,000	39,984,000
Austria	49,582,000	42,396,000	47,183,000	40,385,000	35,988,000
Belgium	21,193,000	16,793,000	18,394,000	18,394,000	19,992,000
Servia	10,395,000	8,797,000	7,996,000	9,998,000	13,994,000
Greece	7,996,000	7,996,000	7,199,000	5,998,000	5,998,000
Holland	5,598,000	5,598,000	4,797,000	5,197,000	5,998,000
Switzerland	5,598,000	4,400,000	5,197,000	4,797,000	4,797,000
Denmark	4,797,000	4,477,000	4,000,000	4,400,000	4,000,000
Norway and Sweden	2,799,000	3,600,000	3,600,000	4,400,000	4,000,000
Portugal	6,398,000	5,598,000	6,799,000	5,598,000	4,000,000
Total	1,373,730,000	1,450,375,000	1,542,244,000	1,501,468,000	1,499,296,000
America :—					
United States	551,802,000	455,838,000	511,818,000	495,822,000	447,842,000
Canada	51,980,000	47,984,000	43,984,000	53,982,000	33,986,000
Mexico	9,598,000	11,195,000	11,996,000	11,996,000	9,998,000
Argentine	58,379,000	82,371,000	59,980,000	45,982,000	31,988,000
Chili	15,996,000	17,994,000	13,193,000	13,594,000	11,996,000
Uruguay	3,400,000	6,398,000	7,996,000	9,998,000	5,998,000
Total	691,155,000	621,780,000	648,967,000	631,374,000	541,808,000
Asia :—					
India	206,323,000	267,104,000	252,710,000	255,108,000	204,729,000
Asia Minor	35,988,000	31,988,000	27,988,000	31,988,000	35,988,000
Persia	17,994,000	15,992,000	17,994,000	19,992,000	19,992,000
Syria	11,996,000	11,996,000	9,998,000	9,998,000	11,996,000
Total	272,301,000	327,080,000	308,690,000	317,086,000	272,705,000
Africa :—					
Algeria	19,992,000	14,795,000	19,992,000	17,994,000	19,992,000
Egypt	8,797,000	9,998,000	9,998,000	9,998,000	7,996,000
Tunis	3,757,000	3,400,000	5,998,000	5,598,000	5,197,000
Cape Colony	3,400,000	4,397,000	4,797,000	4,797,000	4,397,000
Total	35,946,000	32,590,000	40,785,000	38,387,000	37,582,000
Australasia :—					
New South Wales	6,817,000	6,503,000	7,041,000	5,195,000	8,854,000
Victoria	14,815,000	15,255,000	11,446,000	5,669,000	7,076,000
Queensland	463,000	413,000	545,000	124,000	601,000
South Australia	9,240,000	13,618,000	7,781,000	5,929,000	2,804,000
Western Australia	429,000	520,000	170,000	188,000	244,000
Tasmania	1,019,000	834,000	872,000	1,165,000	1,286,000
New Zealand	8,378,000	4,892,000	3,613,000	6,844,000	5,927,000
Total	41,161,000	42,035,000	31,468,000	25,114,000	26,792,000
Grand Total	2,414,293,000	2,473,860,000	2,572,154,000	2,513,429,000	2,378,153,000

During the last two years it will be seen that there has been a considerable falling off in the wheat-yield of the world. In 1895 the European production was 41,000,000 bushels less than in the previous year, and in 1896 the yield was very little better than in 1895. In America there was the great reduction from 649,000,000 bushels in 1894 to 631,000,000 in 1895, and 542,000,000 in 1896, the falling off showing both in the United States and South America. In Australasia the production in 1896 was rather better than in 1895, but the effects of the dry seasons are to be seen during the last three years. There is little variation in the African yield, but there was a considerable decrease in the Indian crop for 1896.

Notwithstanding the abnormally high American returns, their effect upon the world's supply is only of temporary duration. In average years the importing countries of Europe require a supply of about 200,000,000 bushels, which the exporting countries are not always able to furnish; and it is an acknowledged fact that in the United States the growth of the population is proportionally greater than the increase of area sown to this cereal. In Russia and in Central Europe the consumption of wheat is increasing among populations that were in former years satisfied with grain of an inferior description, while there is throughout the world a tendency to a reduction of the area under wheat cultivation, the decrease being estimated at 5,000,000 acres. The great increase in the breadth of land sown to wheat during recent years in the Argentine Republic was a surprise to many; but the peasants who emigrate to South America from Italy and Spain should naturally be expected to follow in their new home the only avocation which they and their forefathers knew in the Old World.

Australasia, and in particular New South Wales, possesses immense areas of land now devoted to sheep rearing that could be much more profitably used for wheat cultivation, which, in these days of depression, would give welcome employment to a large number of men. No doubt the Southern Hemisphere is destined some day to provide its share of the wheat requirements of the world. The low price of the cereal has been in many cases a drawback to the progress of its cultivation in New South Wales, but with the advance in price which the diminished supplies of the last two years have caused, farmers are finding sufficient inducement to sow a larger area to this cereal.

PRICE OF WHEAT.

The price of wheat is subject to constant fluctuation, as the following table, giving the average rates ruling in the Sydney market in the months of February and March of each year since 1864, will show. These figures exhibit clearly the tendency to a gradual reduction in the value of the cereal, the rate for 1895 being the lowest of the series. As New South Wales has never grown sufficient wheat for home consumption, the price in Sydney is generally governed by the rates obtained in the neighbouring Australian markets, where a surplus is produced. These, again, are now determined by the figures realized in London, which are usually equal to those ruling in Adelaide, plus freight and charges. The prices in the following table are for an Imperial bushel, and, being for new wheat, are slightly below the average for the year :—

Year.	February.	March.	Year.	February.	March.
	per bushel. s. d.	per bushel. s. d.		per bushel. s. d.	per bushel. s. d.
1864	7 0	7 6	1881	4 1	4 3
1865	9 6	9 7½	1882	5 5	5 6
1866	8 4½	8 0	1883	5 1½	5 2
1867	4 3	4 4	1884	4 3	4 3
1868	5 9	5 9	1885	3 10½	3 7½
1869	4 9	4 10	1886	4 3½	4 5
1870	5 0	5 1½	1887	3 10	3 11
1871	5 7½	5 9	1888	3 6	3 6½
1872	5 0½	5 3	1889	4 9	5 3
1873	5 1	5 8½	1890	3 6	3 6
1874	6 9	6 1½	1891	3 7½	3 10
1875	4 7½	4 6	1892	4 9	4 9
1876	5 1½	5 6	1893	3 6½	3 6
1877	6 1½	6 6	1894	3 0	3 0
1878	6 1½	5 7½	1895	2 5	2 7
1879	5 0	4 9½	1896	4 4	4 4
1880	4 8	4 9	1897	4 4½	4 5

Cost of Growing Wheat.

The cost of raising wheat depends entirely upon the size of the holding. A large farm with first-class agricultural appliances is capable of being worked at nearly half the cost of a small one, and in cases where the initial expenses of suitable machinery have been disbursed, the cost of production varies from 1s. to 1s. 3d. a bushel. An estimate of the cost of growing wheat ought to include rent, or interest on purchase-money of land, and carriage to the point of consumption. For an area so extensive as that over which wheat-growing is pursued in New South Wales, a separate estimate of these items is well nigh impossible; but it is evident that they tend to a fixed quantity, for where facilities for reaching market are large, and the cost inconsiderable, rent is high ; and where conditions are unfavourable, rent is correspondingly low. Leaving out of consideration rent, interest, and carriage, the cost of growing wheat in New South Wales is approximately as follows :—

	s.	d.	
On large farms with first-class appliances	15	6	per acre.
On moderate-sized farms with good appliances ...	20	0	,, ,,
On small farms	27	0	,, ,,

The rates given include seed, expenses incurred in the preparation of land for cropping, and in sowing and harvesting, as well as depreciation in stock and appliances. The cost of bags is, however, not included.

WHEATEN HAY.

Wheat is also grown in considerable quantities for hay and dry fodder for cattle, and the area cut for hay is steadily increasing, although, of course, it is largely dependent upon the fitness of the crops to be reaped for grain. The produce, however, is still short of the requirements of the colony. The following statement shows the area of wheat-lands cut for hay, with the yearly produce, during the last twenty years:—

Year ended March 31.	Area	Yield.		Year ended March 31.	Area.	Yield.	
		Total	Average per acre.			Total.	Average per acre.
	acres.	tons.	tons.		acres.	tons.	tons.
1878	29,640	29,137	0·98	1888	60,340	70,392	1·16
1879	22,888	31,320	1·36	1889	102,838	42,041	0·41
1880	25,281	32,943	1·30	1890	82,880	140,348	1·69
1881	41,137	44,037	1·07	1891	83,827	96,014	1·15
1882	39,428	42,378	1·07	1892	66,435	75,883	1·14
1883	42,592	43,997	1·03	1893	89,396	116,061	1·30
1884	49,348	55,119	1·12	1894	101,875	100,482	1·00
1885	86,584	87,328	1·01	1895	125,797	136,837	1·10
1886	105,122	74,606	0·71	1896	172,614	99,679	0·58
1887	74,070	109,851	1·48	1897	161,136	118,337	0·73

From the foregoing figures it will be seen that the cultivation of wheat for hay is increasing in a much greater ratio than that for grain, the area so cultivated in 1888-9 having been six times that cultivated for the same purpose in 1877. From that year the area devoted to hay did not, until 1895, reach those figures, the seasons generally being so propitious that a greater proportion than in former years was allowed to come to grain. That season, however, showed an increase of 23,922 acres reaped for hay over an area similarly treated in the agricultural year 1893–4, and in the following year, in consequence of the drought, there was a further increase of no less than 46,817 acres. A long series of dry years may in some measure account for the increased area devoted to hay; but the steady demand both for hay and chaff, wheaten as well as oaten, and the large import of this produce, fully justify an extension of its cultivation. There still exists a considerable difference between the demand for hay and the supply from within the colony, as there was in 1896 a net import of 48,473 tons of hay and chaff, principally for consumption in the Metropolitan district, but this difference is well within the capacity of the colony to produce.

The total area under wheat in 1896–7, both for grain and for hay, was 1,027,248 acres, producing 8,853,445 bushels of grain and 118,337 tons of hay, the value of both kinds of produce being £2,354,725.

MAIZE.

The cultivation of maize is almost as important as that of wheat, and forms the staple industry in the valleys of the coastal rivers, which are peculiarly adapted, both with regard to soil and climate, for the growth of this cereal. On the table-land also its cultivation is attended with fair results, but as the land rises in elevation so does the average yield per acre proportionately decrease. Attempts have been made to grow maize in the western division of the colony, but success has been met with only under special conditions of natural or artificial irrigation, for the plant demands a considerable amount of moisture, and thrives better in the humid climate of the coast than anywhere else in the country. Although the area under maize is much less than that under wheat, the gross yield obtained, measured by bushels, is frequently as large as that of the latter cereal, and in some seasons even greatly in excess of it.

The area under maize-culture has increased from 57,959 acres in the year 1862 to 211,382 acres in 1897, and has, therefore, nearly quadrupled within thirty-five years. Considered in the light of the general advance of settlement, particularly in those districts where maize may be successfully cultivated, there is nothing remarkable in the progress here exhibited, especially as there is no lack of land in New South Wales fit for the cultivation of this cereal. It is, nevertheless, worthy of notice that in the year 1888 an additional area of 24,705 acres was laid down with maize for grain—a much greater increase than was shown during any of the previous twenty-five years, with the exception of the year 1879, when 25,072 acres were added to the area under maize. For the next five years the area fluctuated considerably, and in 1893 it showed a decrease of 23,603 acres on the figures of 1891, many farmers, discouraged by the low price realised for the cereal, putting their land to other uses. The year 1894, however, experienced the notable increase of 38,336 acres, or over 22 per cent. on the figures for 1893; while in 1895 there was a further increase of 2,423 acres; in 1896 an increase of 2,796 acres; and in 1897, one of 278 acres.

The state of maize cultivation in the colony during the period from 1863 to 1897 is shown in the following table. The average yearly acreage and production are given in quinquennial periods, and annually since 1888, the agricultural year ending on the 31st March :—

Period or year.	Area under crop.	Production.	
		Total.	Average per acre.
	acres.	bushels.	bushels.
1863–67	101,245	3,047,478	30·1
1868–72	118,301	3,629,468	30·7
1873–77	117,155	3,804,463	32·5
1878–82	123,160	4,316,819	35·0
1883–87	127,416	4,029,410	31·6
1888–92	175,466	5,330,653	30·4
1893–97	200,845	5,834,322	29·0
1888	171,662	4,953,125	28·8
1889	166,101	4,910,404	29·5
1890	173,836	5,354,827	30·8
1891	191,152	5,713,205	29·9
1892	174,577	5,721,706	32·8
1893	167,549	5,037,256	30·0
1894	205,885	7,067,576	34·3
1895	208,308	5,625,533	27·0
1896	211,104	5,687,030	27·0
1897	211,382	5,754,217	27·2
Average yield for thirty-five years			30·8

The yield per acre is a somewhat variable item, ranging from a minimum of 21·8 bushels, which was obtained in the year 1871, to a maximum of 38·1 in 1870, but when taken periodically, as in the foregoing table, the result is more satisfactory, the range being only from 29 to 35 bushels per acre.

The next statement shows the distribution of the area under crop for maize during the season 1896–7, with the total and average yield in each division :—

Division.	Area.	Production.	Average yield.
The Coast—	acres.	bushels.	bushels.
Northern District	104,101	3,746,004	36·0
Central ,,	31,899	595,121	18·6
Southern ,,	15,665	588,129	38·8
The Table-land—			
Northern District	18,247	267,485	14·6
Central ,,	21,804	144,537	6·6
Southern ,,	13,816	364,151	26·3
The Western Slope—			
Northern District	4,777	46,797	9·8
Central ,,	670	310	0·5
Southern District and Valley of the Murray	391	1,453	3·7
The Western Plains	12	230	19·2
Total	211,382	5,754,217	27·2

From this table it will be seen that the North Coast is the most important maize-growing district, yielding last season 65 per cent. of the total production of the colony, with an average 17·4 bushels per acre higher than in the Central Coast district, including the valleys of the Hunter, the Hawkesbury, and the Nepean Rivers, and the metropolitan county of Cumberland. In the South Coast district, however, the average yield per acre during the last season exceeded that of the North Coast by 2·8 bushels. In both the North and South Coast districts maize is cultivated extensively in every county, the highest total yield coming from the county of Macquarie, with 889,506 bushels, and the highest average yield from the county of Auckland, with 49 bushels. On the southern table-land about three-fourths of the production of the division is grown in the counties of Wynyard and Buccleuch, the rich yields of the Tumut district being the highest per acre of any in the colony.

The estimated yield of the world's crop of maize in 1896 was 2,918 million bushels, of which quantity New South Wales produced less than the five-hundredth part.

The following table, compiled for the purpose of showing the annual movement of the maize market of New South Wales for the last ten years, also shows the yearly requirements for home consumption :—

Year.	Production.	Import.	Export.	Excess of—		Consumption.
				Import.	Export.	
	bushels.	bushels.	bushels.	bushels.	bushels.	bushels.
1887	4,953,125	272,104	337,204	....	65,100	4,888,025
1888	4,910,404	152,010	342,093	....	190,083	4,720,321
1889	5,354,827	237,660	366,063	....	128,403	5,226,424
1890	5,713,205	563,721	30,811	532,910	....	6,246,115
1891	5,721,706	290,786	17,626	273,160	....	5,994,866
1892	5,037,256	324,949	19,326	305,623	....	5,342,879
1893	7,067,576	166,841	12,270	154,571	....	7,222,147
1894	5,62 ,533	58,027	11,733	46,294	.. ..	5,671,827
1895	5,687,030	2,489	42,296	....	39,807	5,647,223
1896	5,754,217	111,018	62,388	48,630	....	5,802,847

The future of this branch of agricultural industry seems limited to the supply of local wants, as New South Wales is adjacent to several maize-producing countries which are already commencing to compete against her in her own markets. Until 1890 the colony produced more than could be locally consumed, and exported a small quantity to her southern neighbours; but in that year, owing to a sudden increase in the demand for maize, the reason for which was not apparent, the large production would seem to have been insufficient, a net quantity of 533,000 bushels of grain having been imported in the course of the twelve months. This import, though on a smaller scale, continued until 1895, when there was again a net export of the grain, the quantity being about 40,000 bushels. Of the gross export of 42,000 bushels, 31,000 bushels were consigned to Queensland—where the production during 1895–6 fell short of the preceding year's yield by nearly a quarter of a million bushels,—and 7,000 bushels to New Caledonia, also a maize-growing country. In 1896, however, there was again a net import, amounting to nearly 49,000 bushels.

As the deficiency in production had not the usual result of causing a sensible increase in the prices paid to the New South Wales farmers, it is a matter of some doubt whether the importations made had not for their object the keeping of a stock of grain in the hands of dealers sufficient to prevent a hardening of the wholesale rates. In such case the deficiency in the production would seem to have been more apparent than real. However this may be, it does not seem probable that this branch of farming can be expanded with much profit to the growers, unless the local consumption should considerably increase.

Maize is not only cultivated as a grain crop, but a small area is sown for green food for cattle, chiefly on dairy farms. In 1896–7, the area thus cultivated was 10,460 acres. The total area under maize during this season was 221,842 acres.

OATS.

This cereal is cultivated as a grain crop, principally in the wheat-growing districts of the colony; and as it is essentially a produce of cold climates, it thrives best in those parts of the country which have a winter of some severity. The average yield of the colony for 1896–97 was 21·1 bushels per acre—the highest yield since 1892–93. The table-land is the principal centre of cultivation, but though the acreage under the cereal is greatest in the central portion, the northern district gives the best return. The northern tableland averaged 30·7 bushels; the central, 20·9 bushels; and the southern, 18·3 bushels;—these districts producing 644,531 bushels of the grain out of a total yield of 834,633 bushels. On the southern-western slope 152,524 bushels were produced, the average yield being 19·7 bushels to the acre; and 11,156 bushels from the North Coast, 13,311 bushels from the Hunter and Hawkesbury Valleys, and 2,598 bushels from the central western slope, practically complete the production.

The following table illustrates the state of the cultivation of oats since 1863. The average yearly acreage and production are given in quinquennial periods up to 1897, and annually since 1890—the agricultural year ending March 31 :—

Period.	Area.	Production.		Year.	Area.	Production.	
		Total.	Average per acre.			Total.	Average per acre.
	acres.	bushels.	bushels.		acres.	bushels.	bushels.
1863-67	12,592	204,979	16·3	1890	22,358	543,330	24·3
1868-72	13,410	224,534	16·7	1891	14,102	256,659	18·2
1873-77	17,753	340,286	19·1	1892	12,958	276,259	21·3
1878-82	19,772	407,277	20·6	1893	20,890	466,603	22·3
1883-87	20,032	460,003	22·9	1894	34,148	701,803	20·5
1888-92	15,359	316,188	20·4	1895	30,636	562,725	18·4
1893-97	29,791	587,992	19·7	1896	23,750	374,196	15·8
				1897	39,530	834,633	21·1

The cultivation of oats for grain has been very irregularly pursued during the period embraced by this table, rising rapidly during the earlier years and remaining practically stationary from 1878 until 1894, when over 13,000 acres were added to the area under crop during the preceding year. In 1896 the area cut for grain was 10,398 acres smaller than in 1894, but this was due to the failure of the crops, caused by the absence of rain, the area cropped for hay being 38,107 acres above the corresponding figure two years before. This decrease was more than made up in 1897, when the area cut for grain was no less than 39,530 acres. The market for oats is chiefly in the metropolitan district, and the demand depends largely upon the price of maize.

The average yield of oats during the period 1863–97 was 19·7 bushels per acre, the minimum obtained in any year being 10·6 bushels in the season 1865-6, and the maximum, 25·1 bushels in that of 1886-7. Compared with the other continental colonies, New South Wales holds, in regard to average yield, the second rank, Victoria coming first; but the oat yield of each of these colonies is surpassed by that of Tasmania and of New Zealand. The climate of the two colonies last mentioned is much better adapted for the successful cultivation of this grain, the average yield per acre in New Zealand in particular being little below that of the United Kingdom, and on a par with the best of the other oat-producing countries of the Old World. The average annual yield of oats throughout the globe for the last five years is estimated at 2,293 million bushels, the production for 1896 being set down at 2,286 million bushels.

In the following table figures will be found giving the average produce per acre in the Australasian colonies during the season 1896–7, and the mean average, together with the maximum and minimum yields, during the last ten years:—

Colony.	Average. 1896–7.	Yield per acre during ten years 1888–97.		
		Average.	Maximum.	Minimum.
	bushels.	bushels.	bushels.	bushels.
New South Wales	21·1	20·0	24·3 (1890)	13·8 (1889)
Victoria	16·3	19·8	25·8 (1893)	14·2 (1889)
Queensland	17·1	18·1	24·3 (1888)	5·6 (1889)
South Australia	4·7	9·2	12·8 (1890)	4·7 (1897)
Western Australia.........	10·8	16·4	23·4 (1889)	10·3 (1896)
Tasmania	21·7	26·0	30·9 (1892)	18·2 (1888)
New Zealand	30·1	31·2	34·0 (1892)	28·7 (1891)

The cultivation of oats as a staple agricultural crop has been much neglected in New South Wales, though the return has not been unsatisfactory. It is possible that in the near future this grain will receive greater attention, especially as the deficiency between the production and the consumption is very considerable. The elevated districts of Monaro, Argyle, Bathurst, and New England, in preference to other parts of the colony, contain vast areas of land where the cultivation of oats could be carried on with remunerative results.

As the production is far from satisfying the wants of the colony, the importation is large, 988,880 bushels, of the estimated value of £105,956, being imported during the year 1896. New Zealand is the principal source of supply, the quantity obtained from that province being 884,851 bushels. Much yet remains to be done before the colony can be independent of outside assistance in regard to the supply of oats, as during the ten years ended 1896 the average quantity produced was only 24·9 per cent. of the amount consumed, and there was an ample market for the produce of 63,530 acres more than the average area reaped.

In connection with this subject it may not be generally known that the relative nourishment of oats exceeds that of either maize or wheat, weight for weight. If 100 be taken as the value of oats for fattening purposes, the respective values of equal weights of the cereals are :—

Oats	100
Wheat	70
Maize	62

And for equal measures :—

Oats	100
Wheat	131
Maize	107

In parts of the colony where the climate is not suitable for maturing the grain, a large area is sown for hay. The average area cut for this purpose during the five years 1877–81 was 70,973 acres, which increased to 104,977 acres in the next quinquennium. In 1887 the area stood at 126,488 acres, but from that time it fluctuated considerably, and never approached the same figure until 1896, when the acreage cut for hay was 120,857, the dry weather preventing the maturity of the crops for grain. In 1897 there was a further increase to 133,946 acres, while the area cut for grain also showed a satisfactory advance. Oaten hay is in much demand, and sells readily at remunerative prices ; and as there is less expense and lighter labour attached to this form of cultivation, the system of growing for hay is more in favour with the farmers than the cultivation of the grain. The areas under the two crops stood to each other in the following relation in the year 1896–7 :—

	Acres.
Area under oats for grain	39,530
Area under oats for hay	133,946
Total	173,476

The area harvested for grain was only 22·2 per cent. of the total area sown with oats. The following statement shows the average annual area under and the production of oaten hay, for the quinquennial periods 1877–81 and 1882–6, and the actual area and production for each of the last eleven years :—

Period or Year ended March.	Area.	Production.	
		Total.	Per acre.
	acres.	tons.	tons.
1877–81	70,973	84,885	1·2
1882–86	104,977	115,525	1·1
1887	126,488	182,921	1·4
1888	86,451	96,126	1·1
1889	85,439	40,753	0·5
1890	103,129	156,920	1·5
1891	70,463	71,305	1·0
1892	76,589	86,077	1·1
1893	101,981	132,426	1·3
1894	82,750	94,128	1·1
1895	96,856	95,517	1·0
1896	120,857	79,635	0·7
1897	133,946	142,957	1·1

In addition to the area cultivated for grain and hay, a small extent of nd is yearly sown for green oaten fodder. Last season 5,451 acres of t-lands were so used. The total area under oats during the year ended 1st March, 1897, was therefore 178,927 acres—an increase of 29,618 res over the area of the previous season.

MINOR GRAIN CROPS.

The minor grain crops harvested are barley, rye, millet, and sorghum. ittle can be said on this subject except that, as in the case of other ereals, the suitability of the soil for their production is an established act. There is, however, so little demand for these kinds of grain that heir cultivation in the colony is very limited.

In 1896–7 barley was sown on 10,684 acres, of which 6,453 acres vere for grain, with a production of 110,340 bushels; 1,615 acres were or hay, with a yield of 2,141 tons; and 2,616 acres were for green odder. The world's estimated annual average yield of barley is stated o comprise 802 million bushels.

The area under rye for grain in 1896–7 covered 1,487 acres, the produce from which was 22,000 bushels, or at the rate of 14·8 bushels to the acre. There were also 625 acres of rye sown for green food. The world's stimated annual average yield of rye is stated to comprise 1,317 million bushels.

Millet was only cultivated over an area of 2,686 acres, 621 acres of which were harvested for grain, the remaining 2,065 acres being sown for green food for cattle. The greater part of the crop of millet was btained in the Hunter River Valley. The average production of the olony amounted to 12·3 bushels per acre.

The cultivation of sorghum for grain appears to have been abandoned, but the area sown in 1896–7 for green fodder for cattle extended over 15,898 acres, chiefly within the dairy-farming districts of the South Coast.

A greater number of minor grain crops than those specified above were cultivated in the colony, but, owing to the small area tilled, were not specified in the agricultural returns.

PRODUCTION AND CONSUMPTION OF GRAIN.

The mean population of New South Wales during the decade extending from 1887 to 1896 was 1,153,422; the average annual production of grain of all kinds was 11,117,383 bushels; and the annual consumption was 14,912,115 bushels. There was, therefore, an average annual deficiency of all kinds of grain during the decade of 3,794,732 bushels. The average annual production per head of all kinds of grain in the olony was 9·6 bushels, and the consumption per head, inclusive of seed rains, 12·9 bushels, leaving a deficiency per head of 3·3 bushels, which ad to be made good by importation. The following table exhibits the total production of the grain crops grown in the colony for the period under notice :—

Year ended 31st March.	Production of Grain.					
	Wheat.	Maize	Barley.	Oats.	Rye.	Millet.
	bushels.	bushels.	bushels.	bushels.	bushels.	bushels.
1887	5,868,844	3,825,146	132,949	600.892	17,784	4,749
1888	4,695,849	4,953,125	84,533	394,762	19,167	4,869
1889	1,450,503	4,910,404	36,760	109,931	5,982	6,917
1890	6,570,335	5,354,827	113,109	543,330	18,239	9,818
1891	3,649,216	5,713,205	81,383	256,659	9,129	2,417
1892	3,963,668	5,721,706	93,446	276,259	11,390	5,079
1893	6,817,457	5,037,256	91,701	466,603	20,356	3,732
1894	6,502,715	7,067,576	114,272	701,803	19,522	9,244
1895	7,041,378	5,625,533	179,348	562,725	13,315	12,460
1896	5,195,312	5,687,030	96,119	374,196	8,078	9,725
Total for 10 years	51,755,277	53,895,808	1,023,620	4,287,160	142,962	69,010

The deficiency in the production of wheat, calculated on the basis of the past ten years, amounts to 32·8 per cent.; in that of barley, 32·8 per cent.; in that of oats, 72·2 per cent.; and in that of maize, 1·7 per cent. The total deficiency in all the principal grain crops during the decennial period was 25·4 per cent. There is no apparent reason why the local production of grain should not equal the demand; on the contrary, the resources of the colony are such that under normal conditions the supply should largely exceed the requirements, and an increasing excess of production become yearly available for export.

The table given hereunder shows the excess of imports over exports of grain during the decennium. Rye and millet have been omitted from the table, as neither of these grains is used in the colony to any extent, and there has been scarcely any export or import :—

Year ended 31st March.	Net Imports of Grain.			
	Wheat.	Maize.	Barley.	Oats.
	bushels.	bushels.	bushels.	bushels.
1887	2,502,960	*65,100	31,754	1,393,949
1888	3,722,806	*190,083	68,410	1,067,204
1889	5,080,438	*128,403	103,153	882,479
1890	1,867,381	532,910	45,862	1,459,173
1891	3,140,687	273,160	60,031	1,439,334
1892	3,203,704	305,623	48,641	1,324,276
1893	1,708,523	154,571	58,626	1,270,091
1894	1,824,575	46,294	34,223	686,275
1895	357,273	*39,807	5,140	787,477
1896	1,913,923	48,630	44,414	877,313
Total for 10 years	25,322,270	937,795	500,254	11,187,571

* Net exports.

The total production, added to the total excess of imports over exports ll give the consumption, inclusive of seed grains, as shown in the bjoined table :—

Year ended 31st March.	Consumption of Grain.					
	Wheat.	Maize.	Barley.	Oats.	Rye.	Millet.
	bushels.	bushels.	bushels.	bushels.	bushels.	bushels.
1887	8,371,804	3,760,046	164,703	1,994,841	17,784	4,749
1888	8,418,655	4,763,042	152,943	1,461,966	18,984	4,869
1889	6,530,941	4,782,001	139,913	992,410	5,454	6,917
1890	8,437,716	5,887,737	158,971	2,002,503	18,198	9,818
1891	6,789,903	5,986,365	141,414	1,695,993	9,129	2,417
1892	7,167,372	6,027,329	142,087	1,600,535	11,390	5,079
1893	8,525,980	5,191,827	150,327	1,736,694	20,356	3,732
1894	8,327,290	7,113,870	148,495	1,388,078	19,522	9,244
1895	7,398,651	5,585,526	184,488	1,350,202	13,315	12,460
1896	7,109,235	5,735,660	140,533	1,251,509	8,458	9,725
tal for 10 years	77,077,547	54,833,403	1,523,874	15,474,731	142,590	69,010

The experience of past years distinctly shows that New South Wales on the whole, better favoured as regards soil, climate, and other tural conditions than any other continental Australian province ; d, consequently, the average yield per acre of wheat, maize, and rley is greater in the parent colony than in any of the remaining ur, Victoria not excepted. Extending the field of comparison, the oduction of cereals is found to reach an average which places New uth Wales on a level with countries usually considered as rich agriltural States. It is better than the average yield of the United ates, Italy, and Hungary ; and, in some respects, almost on a level th that of Germany, Austria, and France. The area adapted for eal-growing is very considerable, and with a better knowledge of the abilities of the various kinds of soil, and well-devised means of ter-storage, there should be practically no limit to the production of in.

STANDARD BUSHELS OF THE VARIOUS GRAINS.

The weight of a bushel of wheat varies from 57½ to 63 lb., according to grade; but the standards, as enforced by an Act of Parliament, assented to on the 10th February, 1880, for this and for other kinds of grain, are as follow:—

Wheat	60 lb.	to the	bushel.
Maize	56	,,	,,
Barley—Cape	50	,,	,,
,, English	52	,,	,,
Oats	40	,,	,,
Rye	60	,,	,,
Peas	60	,,	,,
Beans	60	,,	,,

Tests, for milling purposes, of average samples of wheat from various districts of the colony, give an average weight of 66½ lb. to the bushel.

SOWN GRASSES, AS FOOD FOR CATTLE.

The area sown with green food and grasses for cattle is increasing in the colony, and during the year 1896–7 there were under artificial grasses 384,016 acres (including 50,787 acres of Crown lands) or 83,154 acres more than in 1895–6. Lucerne is grown in considerable quantities on the Hunter River flats, and the cultivation of this fodder is extending throughout the country, principally along the banks of the rivers on the western slope of the Great Divide. The total acreage under lucerne in 1896–7 was returned at 30,512 acres cut for hay, producing 71,467 tons of fodder. In addition to this, there were 37,357 acres of lucerne and grasses sown for green fodder for cattle.

Permanent grasses are laid down principally in the north and south coast districts, 152,529 acres being thus cultivated in the latter division alone; while in the division of the north coast there were 105,958 acres under grass, of which 81,413 acres were laid down in the most northern county of Rous. There is also a considerable area under artificially-sown grasses for dairying purposes on the southern table-land, and to a less extent on the northern and central table-land, and also in the counties of Denison and Hume on the south-western slope; but in the other divisions of the colony the area is small, and cultivated by holders principally for their own use. It is in those portions where dairy-farming is principally carried on that the practice of laying down permanent grasses is most general.

The increasing demand for dairy produce, which is now to some extent being exported to the United Kingdom, has had a considerable influence upon the extension of the area under artificial pastures. The following table shows the progress made in this branch of farming during the last ten years, the area having increased from 192,678 acres in 1887–8 to 384,016 acres in 1896–7, while in 1891 it stood at 388,715 acres. The areas under these artificial pastures are also given for the north and south coast districts, where the dairying industry is most flourishing :—

Year ended 31st March.	Area under Artificial Grasses.			Year ended 31st March.	Area under Artificial Grasses.		
	New South Wales.	North Coast District.	South Coast District.		New South Wales.	North Coast District.	South Coast District.
	acres.	acres.	acres.		acres.	acres.	acres.
1888	192,678	30,621	146,854	1893	361,280	83,820	182,025
1889	200,332	31,520	155,197	1894	302,412	87,681	156,408
1890	217,403	39,950	166,057	1895	362,578	82,078	175,184
1891	388,715	86,592	172,251	1896	300,862	84,982	150,761
1892	333,238	99,203	148,434	1897	384,016	105,958	152,529

NATURAL GRASSES AND RING-BARKING.

The area ring-barked and partially cleared for the preservation of the natural grasses as food for stock was recorded in 1896–7 at 25,986,208 acres, 11,436,271 acres being on the western slope, 9,364,639 acres on the table-land, 2,231,240 acres in the coast districts, and 2,954,058 acres on the western plains. By far the largest area ring-barked was in the pastoral divisions, for grazing purposes for sheep, although farmers also, to some extent, resort to this method of increasing the food supply for their inferior stock, and even for cows in milking, supplementing the natural grasses with lucerne, sorghum, and other green foods.

POTATOES.

The cultivation of the potato has progressed very slowly, although the seasons 1894 and 1895 showed a marked increase in the industry. The area planted for the season ended 31st March, 1895, viz., 30,089 acres, was the largest ever recorded, and the total yield of 85,270 tons the highest in the history of the cultivation of the tuber in the colony up to that time. The average yield per acre was, however, only 2·83 tons; in the preceding year it was 3·16 tons—a return which had not been reached since the year 1880. In 1896, however, in consequence of the dry weather, the area declined to 24,722 acres, and the production to 56,179 tons—the average yield being only 2·27 tons; but the following season was more propitious, and an area was planted exceeding even that of 1895, the total yield reaching 84,214 tons from 31,170 acres, giving an average of 2·7 tons per acre. At present New South Wales has to make up by importation from the other colonies a considerable deficiency, which amounted in 1896 to 39,406 tons net, or about 32 per cent. of the total consumption for the year.

The following table illustrates the state of the cultivation of potatoes for the quinquennial periods and years given :—

Period or year ended 31st March.	Area.	Production.	Average yield.
	acres.	tons.	tons.
1866–70	16,597	38,737	2·33
1871–75	14,327	40,967	2·86
1876–80	15,567	46,983	3·02
1881–85	15,374	41,642	2·71
1886–90	17,274	46,578	2·70
1891–95	23,423	67,257	2·87
1891	19,406	52,791	2·72
1892	22,560	62,283	2·76
1893	18,502	52,105	2·81
1894	26,559	83,838	3·16
1895	30,089	85,270	2·83
1896	24,722	56,179	2·27
1897	31,170	84,214	2·70

The centres of potato cultivation are the counties of Bathurst (principally in the Orange and Carcoar districts), Argyle, King, Sandon, Camden, Clarence, and Durham, and, to a less extent, the other counties of the coast and table-land districts. On the western slope this root-crop has hardly any representation at all. Its cultivation is, however, capable of very wide distribution throughout the colony; but in many places formerly well known for its production it has been largely displaced by maize and other cereals.

TOBACCO.

Both the soil and climate of New South Wales are well fitted for the growth of the tobacco-plant, but as it demands for its proper cultivation special knowledge on the part of the grower, it is not so largely cultivated as it otherwise might be. The Government of the colony are endeavouring to remedy this state of affairs, and have engaged the services of an expert to assist the growers in the culture of the plant. In the year ended 31st March, 1864, the first shown in the subsequent table, there were only 534 acres under cultivation, producing 4,851 cwt. of leaf tobacco. In the following years the area under the plant largely increased, chiefly in the agricultural districts of Argyle and the Hunter River valley. Since then the growth of tobacco seems to have been almost entirely abandoned in the districts where it was first attempted; but it has spread to other parts of the colony, the counties of Wynyard, Bathurst, Roxburgh, Parry, Westmoreland, and Buccleuch, being now the principal centres of production. The greater portion of the tobacco grown in 1896–7 was obtained in these districts, but its cultivation is chiefly in the hands of Chinese, few European agriculturists apparently possessing the knowledge required for the proper cultivation and preparation of the leaf. According to the latest returns tobacco is cultivated on 416 holdings. The Census taken on the 5th April, 1891, recorded the total number of persons employed in the culture of tobacco as 388, and of these, 379, or 98 per cent., were Chinese. This fact shows to what a great extent the practice of growing and curing the leaf of the tobacco-plant has been abandoned to these aliens.

Between the years 1881 and 1889 the area devoted to the cultivation of tobacco was enlarged from 1,791 to 4,833 acres, with a corresponding increase in the yield of leaf. As, however, the local product did not compare favourably with the American leaf, it could not be exported profitably; so that a large proportion of the crop remained upon the farmers' hands, the quantity sold realised very unsatisfactory figures, and many growers consequently abandoned the cultivation of tobacco in favour of other crops. With the accumulation of stocks of leaf, and the fall in the price of the local product, the area under the plant and the resultant yield declined rapidly, and in 1893 the acreage was only 848, and the production 8,344 cwt. A better crop in the following season had the effect of increasing the production by 2,514 cwt., although only 6 acres more had been placed under cultivation. In 1895 both the area and the total yield were less than in any year since 1880; but in 1896 the area increased to 1,231 acres, and in 1897 to 2,744 acres—the largest since 1890. The crop in 1896 suffered from the adverse season, and the production was barely up to that of 1894, when nearly 400 acres less were under cultivation; but in 1897 it reached 27,468 cwt., as compared with 10,548 cwt. in the preceding year.

The following table shows the progress of the industry during the last thirty-four years:—

Year ended March 31.	Area.	Production.		Year ended March 31.	Area.	Production.	
		Total.	Average per acre.			Total.	Average per acre.
	acres.	cwt.	cwt.		acres.	cwt.	cwt.
1864	534	4,851	9·1	1881	1,791	19,469	10·9
1865	807	4,036	5·0	1882	1,625	18,311	11·2
1866	1,499	7,469	5·1	1883	1,815	17,540	9·7
1867	1,326	2,478	1·9	1884	1,785	20,006	11·2
1868	627	6,035	9·1	1885	1,046	9,914	9·5
1869	875	7,925	9·1	1886	1,603	22,947	14·3
1870	366	3,192	8·7	1887	1,203	13,642	11·3
1871	225	700	3·1	1888	2,371	23,465	9·9
1872	567	4,475	7·9	1889	4,833	55,478	11·5
1873	440	2,751	6·2	1890	3,239	27,724	8·6
1874	199	1,261	6·3	1891	1,148	14,021	12·2
1875	539	6,069	11·3	1892	886	9,314	10·5
1876	491	4,098	8·3	1893	848	8,344	9·8
1877	333	2,440	7·3	1894	854	10,858	12·7
1878	399	3,049	7·6	1895	716	8,132	11·4
1879	835	7,932	9·5	1896	1,231	10,548	8·6
1880	592	6,221	10·5	1897	2,744	27,468	10·0

During the year 1896 there was a total consumption of manufactured tobacco and cigars of 3,221,959 lb. weight, of which 2,043,689 lb. were made in the colony from 693,913 lb. of American leaf and 1,349,776 lb. of leaf locally grown. The production of leaf for 1897 was equivalent to 3,076,416 lb., from which a third may be deducted for damage and waste, and the quantity left, viz., 2,050,944 lb., will probably more than suffice for the requirements of the home manufacturers.

The Department of Agriculture has of recent years taken steps to revive the interest of agriculturists in the industry, and lately a tobacco expert has been brought from America by the Government, with the object of instructing growers in the cultivation of the plant. In view of the fact that few countries are better favoured than New South Wales with climate and soil necessary for successful cultivation, it is certainly a matter for regret that the industry has not made more satisfactory progress. The difficulty, however, is not so much with the producer as with the market. The local consumption could be rapidly overtaken, and the surplus production would then have to be placed on the English or foreign markets, where it would enter into competition with tobacco having a well-established reputation, and a flavour for which continued use on the part of the consumer has created a taste and a predilection.

SUGAR-CANE.

The first returns in which mention is made of the cultivation of the sugar-cane and the production of sugar in New South Wales date only from 1863–4. In that agricultural year two acres were recorded as having produced 280 lb. of sugar, and it will appear strange that out of this quantity 220 lb. were stated to be the produce of one acre of cane, grown in the northern part of the county of Bathurst, while the remaining 60 lb. were produced on the banks of the Macleay River. The district last mentioned may be considered as the principal seat of the industry during its earlier stages; but it proved to be unsuitable to the growth of the cane, and the risk of failure from frosts compelled the planters to keep more to the north. In a few years the richest portions of the lower valleys of the Clarence, the Richmond, the Tweed, and the Brunswick were occupied by settlers engaged in planting and growing the cane. Mills were erected in the chief centres of cane-cultivation, and cane-growing and sugar-manufacturing are now the principal and best-established industries of the north-eastern portions of the colony.

Although frosts are not altogether unknown even on the Tweed, the soil and climate of the valleys of the northern rivers are in most respects well adapted to the successful cultivation of the sugar-cane, and it is confined principally to the valleys of the Richmond, Tweed, and Clarence Rivers, and nearly the whole of the area under this crop lies within the counties of Rous, Clarence, and Richmond.

The following table shows the progress of this industry during the last twenty-one years. The figures relating to the area yearly placed under cane are given for earlier dates, but the number of tons produced cannot be ascertained prior to 1877. As sugar-cane is not an annual crop, the area under cultivation has been divided, as far as practicable, into productive and non-productive, the former representing the number of acres upon which cane was cut during the season, and the latter the area over which it was unfit for the mill, or allowed to stand for another year:—

Year ended 31st March.	Area.			Production Cane.	
	Productive.	Non-productive.	Total.	Total.	Average per acre.
	acres.	acres.	acres.	tons.	tons.
1864	....	....	2	....	....
1865	....	....	22	....	....
1866	....	....	141	....	....
1867	....	....	116	....	....
1868	....	....	647	....	....
1869	....	....	2,584	....	....
1870	....	....	3,917	....	....
1871	1,475	2,607	4,082	....	....
1872	1,995	2,399	4,394	....	....
1873	3,470	2,001	5,471	....	....
1874	3,565	3,105	6,670	....	....
1875	4,087	4,453	8,540	....	....
1876	3,654	2,800	6,454	....	....
1877	3,524	3,231	6,755	99,430	28·2
1878	3,331	3,735	7,066	99,978	30·1
1879	2,949	4,489	7,438	04,192	35·3
1880	3,675	4,102	7,777	126,119	34·5
1881	4,465	6,506	10,971	121,616	27·2
1882	4,983	7,184	12,167	128,752	25·8
1883	6,362	7,176	13,538	169,192	26·6
1884	7,583	7,401	14,984	204,547	26·9
1885	6,997	10,520	17,517	105,323	15·1
1886	9,583	6,835	16,418	239,347	25·0
1887	5,915	9,202	15,117	167,959	28·4
1888	8,380	6,907	15,287	273,928	32·7
1889	4,997	10,284	15,281	110,218	22·1
1890	7,348	11,382	18,730	168,862	23·0
1891	8,344	12,102	20,446	277,252	33·2
1892	8,623	13,639	22,262	185,258	21·5
1893	11,560	15,191	26,751	264,832	22·9
1894	11,755	16,357	28,112	252,606	21·5
1895	14,204	18,705	32,909	264,254	18·6
1896	14,398	18,529	32,927	207,771	14·4
1897	18,194	12,859	31,053	320,276	17·6

The figures contained in the above table show the gradual progress of the sugar-growing industry from the small beginnings of 1864. From the starting point of this cultivation there was but one single break (that of 1876), in the yearly increase of land put under cane until 1885. During the four succeeding years there was, however, a retrograde tendency, and the area cultivated in 1889 was less by 2,236 acres, or 12·7 per cent., than that cultivated in 1885. In 1890 there was an increase in the area under cane of 1,213 acres over the area similarly cultivated in 1885, the year for which, up to that time, the highest acreage had been recorded. This increase in the area planted has been proportionately maintained during the following years, the area under sugar-cultivation in 1897 being given as 31,053 acres. The low price of the staple and the disturbed state of the markets of the world a few years ago, forced the sugar-manufacturers to correspondingly reduce the price offered for the cane, and so caused for a time the abandonment of this cultivation by the small farmers, who found in the growth of maize less variable results for their labour. The crop of 1896–7 gave a yield of 320,276 tons of cane, but the average production per acre was only 17·6 tons—with the exception of that of 1895–6, the lowest yield recorded. The cane disease which has been prevalent, principally on the Clarence, accounts for the low average for the past five years, while in 1895–6 the crop was also damaged by frost.

Sugar-cane is generally cut in the second year of its growth, the fields being replanted after they have given crops for three or four seasons at the most; and, as the planting of cane has been conducted at irregular intervals, it has chanced that seasons of large production have been followed by small crops in the succeeding year. This accounts for the alternately large and small areas of productive cane during many years, as shown in the preceding table. Sugar-manufacturers invariably purchase the year's crop of cane standing and cut it at their own cost. From plantations in full bearing the average weight of the cane cut varies from 25 to 32 tons, while the price paid ranges from 8s. to 13s. per ton. For the season 1897 the leading buyer has fixed the price for the standing two-year old cane at 10s. 3d. per ton. This is considerably lower than in previous seasons, not by reason of any change in the standard prices, but through a large proportion of the crops having been seriously damaged by frost, and purchased at their real value, as determined by analysis. The average cost of cutting the cane may be set down at 3s. 2d. per ton.

The county of Rous is now the principal centre of sugar-cane cultivation, containing 891 holdings, covering 18,488 acres, devoted to the production of sugar—an area comprising over three-fifths of the total acreage in the colony under cane crops. The yield obtained from 10,811 acres of productive cane amounted to 206,419 tons, showing an average of 19·1 tons per acre. In the county of Clarence there were, in 1896–7, 597 holdings on which cane was grown, the aggregate area being 9,300 es. In this, as in the other sugar-growing counties, the majority of the farmers cultivate sugar-cane in addition to other crops, and only a few estates are entirely devoted to its production. Some planters have areas of 25 to 100 acres in extent under cane, but their number is limited. The yield in the county of Clarence was 82,547 tons, or an average of 14·6 tons per acre, cut on an area of 5,646 acres. In the county of Richmond the holdings under sugar-cane numbered 194, and aggregated 3,109 acres, of which 1,655 acres were cut, giving a total yield of 30,390 tons of cane, or an average of 18·4 tons to the acre. There were in the county of Fitzroy only 2 holdings under sugar-cane, with a total area of 61 acres, of which 41 were productive, giving a yield of 407 tons, or an average production of 9·9 tons to the acre. The county of Raleigh contained 11 holdings on which sugar-cane was cultivated, comprising an area of 42 acres, of which 12 were productive, giving a total production of 313 tons, or an average of 26·1 tons to the acre. In the southern coastal county of Camden there were 8 holdings, aggregating 17 acres, of which 6 were productive, giving a total production of 11 tons, or an average of 1·9 tons to the acre. In the whole of the remaining portion of the colony there were 36 acres under cultivation. The total number of holdings on which sugar-cane was cultivated was 1,733.

The total consumption of sugar in New South Wales during the year 1896 amounted to 60,724 tons, of which 25,458 tons were the product of the local plantations. The quantity treated by the refineries of the colony, including imports, during the twelve months was 43,300 tons. The yield of sugar per ton of cane varies, of course, according to the viscidity of the juice, but in ordinary seasons it may be set down at somewhat over 9 per cent. of the quantity treated.

On the estates belonging to the Colonial Sugar Refining Company, the conduct of the business has been entrusted to practical men, and no money has been spared to obtain the most approved and complete plant for the manufacture of sugar. This Company's works on the Richmond River are among the most complete in any part of the world, and the sugar manufactured is equal to the best Mauritius and West Indian samples.

Minor Root Crops.

Among the minor root crops may be mentioned turnips, mangold-wurzel, onions, arrowroot, chicory, and beetroot. According to the agricultural returns collected during the season 1896–7, there were gathered in New South Wales £17,519 worth of miscellaneous crops, cultivated on 1,352 acres; and among these were some small areas, almost insignificant in their independent acreage, upon which were grown small yields of almost every agricultural product mentioned in this chapter.

The most important of the minor root crops is that of turnips, which show a total production of 1,642 tons from 345 acres. Onions, properly speaking a bulb crop, were recorded as having been grown on 248 acres and the yield was 535 tons. Mangold-wurzel gave from 72 acres 349 tons. A little arrowroot is grown in the northern coastal district, and a little chicory in the central division of the table-land.

The sugar-beet, the cultivation of which in France and Germany has reached enormous proportions and has become a staple industry, is now attracting a good deal of attention both in New South Wales and in Victoria. In Victoria the Department of Agriculture has lately made some careful analyses of different varieties of locally-grown beets, with the most satisfactory results. A good beet should show not less than 12·5 per cent. of sugar, but those tested by the Department yielded 14·16, 14·87, 15·25, and 15·61 per cent. respectively. The Government of the colony have passed an Act under which the Treasurer is empowered to advance money on easy terms for the purpose of establishing mills for the production of sugar from beets. The results of the tests made in Victoria have, however, been greatly exceeded by those furnished by analyses of beets grown in the Tenterfield district of New South Wales. The chemist of the Colonial Sugar Refining Company, at the request of a local beet-grower, made a series of tests, the yield per root from those analysed being respectively 15·66, 16·08, 17·89, 19·51, 19·90, 20·13, 20·33, 20·56, 22·11, 22·22, and 24·75 per cent. Experts pronounce such yields to be unparalleled in the history of the cultivation of the beet; and there is, in consequence, a movement in favour of testing this branch of agriculture in those districts unsuited to the growth of the cane, special attention being directed to the matter in the Tenterfield district, where the project has taken practical shape. Should the cultivation of the beet for sugar production fulfil but half the expectations of its promoters, there is little doubt that it will greatly modify agriculture in the colony, and add another profitable staple to the country's resources.

LENTIL CROPS.

There were, during the season 1896-7, under crop to peas and beans, 207 acres, which gave a total yield of 4,410 bushels. The coastal division of the colony contained 124 acres devoted to this crop, and the yield was recorded as 2,944 bushels. The northern coast district yielded 399 bushels from 26 acres; the valleys of the Hunter and the Hawkesbury Rivers, 1,109 bushels from 34 acres; the metropolitan county of Cumberland, 652 bushels from 21 acres; and the southern coast district, 784 bushels from 43 acres. The area under this crop on the table-land was 70 acres, and the yield 1,302 bushels; to which the northern district contributed 208 bushels from 21 acres; the central, 738 bushels from 20 acres; and the southern, 356 bushels from 29 acres. The western slope had under this crop only 11 acres, yielding 154 bushels; while the western plains had 2 acres, yielding 10 bushels.

The peas and beans herein described were grown mainly as hard fodder for horses, and must not be confounded with the peas and beans cultivated in the kitchen and market gardens for table use as vegetables. Peas are gathered when perfectly dry, and constitute in that state excellent fattening food for pigs being prepared for the knife.

In addition to the green peas grown on market gardens, which are included in market garden produce, 314 acres were cropped on farms, giving a total yield of 8,830 bushels.

GOURD CROPS.

The area devoted to pumpkins and melons during the season 1896-7 was 5,017 acres, and the yield 17,940 tons. The principal places of cultivation are the maize districts and the metropolitan county. In the coastal district the area was 2,998 acres, and the production 10,769 tons, of which the valleys of the Hawkesbury and Hunter Rivers gave 4,453 tons from an area of 1,394 acres; the northern counties, 2,191 tons from 566 acres; and the county of Cumberland, 2,536 tons from 753 acres. The area under gourd crops on the table-land was 1,679 acres, from which 6,254 tons were produced; and on the western slope there were 312 acres which yielded 828 tons. On the western plains there was a small area of 28 acres under this form of cultivation, and the produce obtained from it weighed 89 tons.

Pumpkins and melons are grown principally for table use as vegetables, and as a jam staple; but they are also used extensively as fodder for cattle and pigs. The number of acres under gourd-vines mentioned above is somewhat below the truth, as there was no doubt a large area of production which was never returned, it being the custom to plant pumpkin and melon seeds in orchards and vineyards between the rows of fruit-trees and vines.

MARKET-GARDENS.

In 1896-7 there were in the colony 2,125 holdings, comprising 6,824 acres, cultivated as market-gardens, the average size of each garden being 3 acres. The value of the production for the year was set down at £168,353, and the number of persons employed in this branch of cultivation was probably about 7,000, the greater number being Chinese; indeed, the market-garden in Australia is seldom termed such, the generic appellation being "Chinese" garden. At the Census taken in 1891 there were returned as following the calling of market-gardeners, 5,101 persons, of which number 3,841, or 75·3 per cent., were Chinese; of 3,131 domestic and other gardeners, 405, or 12·9 per cent.; of 542 vegetable hawkers, 403, or 74·4 per cent.; and of 309 greengrocers 144, or 46·6 per cent., were of the same race. This is evidence emphatic enough, if such were needed, as to the monopoly by the Chinese of the occupation of market gardening and vegetable supplying in New South Wales.

The subjoined statement exhibits the number, area, and value of production of market gardens in each of the great divisions into which the colony has been divided :—

Division of the Colony.	Market-gardens.	Area.	Value of Production.
The Coast—	No.	Acres.	£
Northern District	205	365	5,524
Valleys of the Hunter and Hawkesbury Rivers.	334	771	13,489
County of Cumberland and the Metropolis.	843	3,275	93,005
Southern District	128	311	7,934
Total	1,510	4,722	119,952
The Table-land—			
Northern District	121	256	3,247
Central ,,	179	857	17,058
Southern ,,	147	484	10,154
Total	447	1,597	30,459
The Western Slope—			
Northern District	50	168	6,201
Central ,,	18	63	1,783
Southern ,,	49	152	3,397
Total	117	383	11,381
The Western Plains	51	122	6,561
Grand Total	2,125	6,824	168,353

One branch of gardening, namely tomato-culture, has not yet received that attention which its importance demands. The possibilities of a large local trade, together with an export trade of very considerable magnitude, have not yet awakened horticulturists to a sense of the importance of this valuable vegetable. There is an active and continually increasing demand for sauces, jams, and preserves of tomato, and the foreign supply is by no means so good or so cheap as to render competition difficult. In the future, perhaps, areas of many acres in extent will be planted with tomato-vines, as they now are with grape-vines, and numbers of people will be employed in the manufacture of tomato sauce, and in canning the fruit. Both climate and soil are favourable, and tomatoes grown in New South Wales compare to advantage with those produced in their native habitat.

VINES AND WINE PRODUCTION.

In almost every part of the colony, with the exception of the sub-tropical portion and the higher parts of the mountain ranges, grape-vines thrive well, and bear large crops of succulent fruit, equal in size, appearance, and flavour to the most renowned products of France, the Rhinelands of Germany, and Spain. Nevertheless, the vine-growing and wine-manufacturing industries are still in their infancy, though with a growing local demand, and the opening up of a market in England, where the wines of New South Wales, in common with those of the other Australian colonies, have obtained some appreciation, the future of grape culture in this country appears to be fairly assured. At present, however, the production of the whole of Australia is comparatively insignificant, as will appear from the following table, showing the vintage of the world for 1895 :—

Country.	Production in million gallons.	Country.	Production in million gallons.
France	587	Bulgaria	26
Italy	469	United States	19
Spain	379	Servia	18
Algeria	83	Russia	16
Germany	80	Brazil	8
Roumania	69	Azores, Canaries, and Madeira	5
Austria	66		
Hungary	63	Tunis	4
Turkey and Cyprus	53	Cape Colony	2
Portugal	44	Mexico	2
Greece	35	Persia	1
Chili	33	Australia	4
Argentine Republic	30		
Switzerland	27	Total	2,123

The vine was planted in the early days of colonisation in New South Wales, but it was not until the year 1828 that vine-growing and wine-making may be said to have been fairly established. In that year Mr. Busby returned from Europe with a large collection of cuttings from the most celebrated vineyards of France, Spain, the Valley of the Rhine, and other parts of the Continent of Europe; and planted on his estate at Kirkton, in the Hunter River district, a vineyard, which has been the nursery of the principal vineyards of the colony. Some years afterwards the vine was planted in the Murray River Valley and in other districts, and was found to flourish so luxuriantly that the manufacture of wine received considerable attention. For a time, however, the prospects of this industry seemed very discouraging, and the production was considerably diminished, owing partly to the want of a market, and partly to the fact that the wine-makers, many of whom were not vignerons by training, possessed only a limited knowledge of the manufacture of wine, and produced at first an article of inferior and unsaleable quality. In the principal vineyards in the Valleys of the Murray and Hunter Rivers, however, neither pains nor money has been spared to introduce skilled labour, and to put up presses, vats, and other manufacturing appliances of the most approved kinds.

The results of such intelligent treatment became apparent when prizes were awarded to the wines of New South Wales at the Paris Exhibition of 1878, followed by an unbroken series of successes at the Exhibitions of Philadelphia, Sydney, Melbourne, and Amsterdam; and still more recently at the Indian and Colonial Exhibition in London. But nowhere was the general excellence of the wines of the colony more fully recognised than at the Bordeaux Exhibition of 1882. There, in the principal centre of the wine trade of the world, some of the wines of New South Wales were classed, by the most competent judges, in the category of *Grands Vins*, and their value fully appreciated and established. Again, at the World's Fair, held in 1893, at Chicago, an international jury of experts pronounced the wines of New South Wales to be equal to many of the finest viticultural productions of the noted wine-growing countries of Southern Europe. The opinion was expressed, however, that the practice of labelling Australian wines with European names was to be deprecated, as they possessed many excellent and distinctive characteristics, sufficiently peculiar to justify the adoption of a new and descriptive system of classification.

Notwithstanding the winning of exhibition medals and expert approval, the export of the wines of the colony has not yet reached an important figure, although the prospects of the trade are said to be improving. Among other causes which retard the acceptance of Australian wines by English markets, may be mentioned the practice of shipping the product at too early an age, and the impossibility of obtaining from the shippers details respecting the vintage of any particular wine. It is, moreover, alleged that when certain shipments of wine arrived in England they were often so badly looked after as to be actually unsound before being shown to the wine merchant. Foreign experts find fault also with the method of casking, and recommend the preliminary treatment of wine in Australia, as it is treated in Bordeaux, with cool cellarage, fining, racking, and blending, for two years and a half to three years prior to leaving the country. No doubt much of the success of New South Wales as a wine-exporting country will depend on the adoption of more advanced methods, the more general employment of European experts in wine-making, and the enterprise of the vignerons in properly advertising their productions and bringing them sufficiently before the notice of the British public.

The total imports of all Australian wines into the United Kingdom as recorded by the Board of Trade returns for ten years, were as follow :—

Year.	Gallons.	Year.	Gallons.
1887	168,000	1892	461,000
1888	233,000	1893	555,000
1889	307,000	1894	399,000
1890	314,000	1895	613,000
1891	382,000	1896	610,560

The possibilities of the wine trade, correlative with an improvement in manufacture, may be appreciated from the following figures, which exhibit in some detail the imports of wine into the United Kingdom during the year 1896. The quantities represent both wine in cask and in bottle :—

Country.	Gallons.	Country.	Gallons.
France	6,736,718	United States	238,365
Spain	3,723,299	Madeira	61,753
Portugal	3,571,520	British South Africa	9,803
Australasia[1]	703,676	Other countries	185,339
Holland	631,101		
Italy	426,742	Total	16,695,560
Germany	407,244		

Of the total quantity imported, there were 11,638,415 gallons of red, and 5,057,145 gallons of white wine. The imports from France comprised 4,748,288 gallons of red, and 1,988,430 gallons of white wine; the imports from Portugal, 3,560,280 gallons of red, and 11,240 gallons of white; and those from Spain, 1,922,982 gallons of white, and 1,800,317 gallons of red wine.

Vignerons have been much exercised recently with the problem of the pasteurization of wines for export. By this process the wines are submitted to a temperature of from 140° to 150° Fahrenheit, thereby fixing the characteristics of a product, annihilating the destructive germs that lead to its deterioration, and making it impossible for them to reinvade it; but hitherto the experiments in this direction have been only tentative.

From the foregoing it will be seen that the export of the wines of New South Wales, about which so much has been written, does not seem to give very encouraging results; in fact, the trade is a very small one, and has decreased from 54,143 gallons sent away from the colony in 1891 to 24,177 gallons in 1896. The quantity sent last year to the United Kingdom amounted to 6,394 gallons, or 12,900 gallons less than that exported in 1892, when the export amounted to 19,294 gallons. During some years a considerable quantity of wine was sent away in wood from the Albury and Riverine districts to the neighbouring colony of Victoria, presumably for shipment at Melbourne. In 1891, when the export of the wine produced in New South Wales amounted to 54,143 gallons, the trans-Murray consignments totalled 38,548 gallons of the quantity exported. This intercolonial export has now, however, fallen to insignificant proportions.

In the following table will be found particulars of the export trade in wine locally produced, for the five years extending from 1892 to 1896:—

Country.	1892.	1893.	1894.	1895.	1896.
	gallons.	gallons.	gallons.	gallons.	gallons.
United Kingdom	19,294	17,941	12,038	6,249	6,394
Victoria	50	298	7,162	4,156	5,636
New Zealand	1,860	1,174	2,082	3,500	1,934
India and Ceylon	854	1,002	2,292	2,339	442
Queensland	1,981	1,751	2,487	2,239	1,881
South Sea Islands	1,466	1,363	1,704	2,019	3,496
British New Guinea, Singapore, Java, the Philippine Islands, the Straits Settlements, and Siam	......	4	404	619	595
Tasmania, South Australia, Western Australia, and Norfolk Island	395	135	254	201	2,020
New Caledonia	1,595	1,510	379	88	2
Japan, China, and Hong Kong	52	32	867	80	26
France, Belgium, Germany, and Italy	301	193	94	67	1,743
Canada and the United States	......	365	623	......	8
Egypt and the Mauritius	9	......	......	......	......
Total	27,857	25,768	30,386	21,557	24,177

During the year ending the 31st March, 1862, the wine produced in New South Wales measured 85,328 gallons; in 1866, the production reached 168,123 gallons; in 1876 it had increased to 831,749 gallons; in 1886 the production was only 555,470 gallons; and in 1896 it reached 885,673 gallons; while in the following year it was 794,256 gallons. The highest production was obtained in 1893, the quantity totalling 931,542 gallons—137,286 gallons more than in 1897, although the area in the latter year was greater by 462 acres. Vignerons consider 250 gallons per acre a good yield, but the average yield for New South Wales reached this figure only in one year since the establishment of the industry, viz., in 1876, when the average yield per acre was recorded as 263 gallons.

The following statement shows the progress of the industry since 1863:—

Year ended 31st March.	Total area under vines.	Area under vines for wine-making only.	Production.		Year ended 31st March.	Total area under vines.	Area under vines for wine-making only.	Production.	
			Total.	Average per acre.				Total.	Average per acre.
	acres.	acres.	gallons.	galls.		acres.	acres.	gallons.	galls.
1863	1,460	795	144,888	182	1882	4,027	2,597	513,688	198
1864	1,641	880	136,976	156	1883	4,448	2,629	543,596	207
1865	1,849	945	161,299	171	1884	4,378	2,560	589,604	230
1866	2,126	1,243	168,123	135	1885	4,584	2,405	442,612	184
1867	2,281	1,358	242,183	178	1886	5,247	2,876	555,470	193
1868	2,532	1,483	285,283	192	1887	5,840	3,131	601,897	192
1869	3,117	1,917	412,587	215	1888	6,745	3,292	666,382	202
1870	3,907	2,039	460,321	226	1889	7,072	3,596	805,813	225
1871	4,504	2,371	342,674	145	1890	7,867	3,603	688,685	191
1872	4,152	2,466	413,321	168	1891	8,044	3,896	842,181	216
1873	4,090	2,568	451,450	176	1892	8,281	3,846	913,107	237
1874	4,547	3,183	578,985	182	1893	8,264	4,146	931,542	225
1875	4,308	3,077	684,258	222	1894	7,375	4,130	748,929	181
1876	4,459	3,163	831,749	263	1895	7,577	4,475	731,683	164
1877	4,457	3,217	799,709	249	1896	7,519	4,390	885,673	202
1878	4,183	3,027	708,431	234	1897	8,061	4,608	794,256	172
1879	4,237	3,024	684,733	226					
1880	4,266	3,091	733,576	237					
1881	4,800	2,907	602,007	201	Mean for 35 years ...				203

The above figures show that the wine industry has very considerably increased during the period under review, the total area planted being now over seven times what it was in the year 1862, when it stood at 1,130 acres, from 562 acres of which grapes were gathered for wine-making, the total production being 85,328 gallons. The yields for the years 1876, 1877, 1880, 1884, 1892, and 1893 were the best of the series. The total number of vine-growers in 1897 was 2,031. The average area of each vineyard was 3·9 acres; and the area planted with vines still in an unproductive state was 760 acres.

In connection with the wine-making industry there was during the season 1896-7 a manufacture of 7,134 gallons of brandy, which was not, however, distilled for local consumption, but for the purpose of fortifying wines.

The wine industry is unquestionably hampered in its development by many things, including phylloxera vastatrix, oidium, anthracnose, caterpillars, and other pests. Phylloxera has caused some damage in the vineyards of the neighbouring colony of Victoria, seriously threatening the stability of the industry, and necessitating stringent legislative measures. It has appeared also in some vineyards in the Camden, Seven Hills, and Parramatta districts, but so far without causing any great ravages, although some alarm exists among wine growers touching its development in the future. The knowledge that this pest has obtained a foothold in the colony, however slight it may be, has certainly stopped investment in vineyard properties, and has greatly damped the enthusiasm of those interested in the wine trade. At present the afflicted areas are confined to isolated patches, but this is quite enough to cause the gravest apprehension. A commission was appointed a few years ago to report on the appearance of the disease, and the best means of preventing its spreading throughout the vineyards of the colony. The prohibition of the importation of vine-cuttings from abroad has been in force for some time, and the destruction of infested vineyards has been carried out under the direction of the Vine Diseases Board; but vignerons recommend direct legislative action under a more stringent Act than that at present in operation. It is interesting to note that, in consequence of the greater attention that vignerons in France have had to devote to the vines in order to combat the ravages made by the phylloxera, the last state of the vineyards in that country is said to be better than the first.

In order to advance the interests of the wine-growing industry in New South Wales, experts advise the restriction of the choice of vines to a few well-tried and sound varieties, careful fermentation, the preservation as far as possible of constant types, attractive bottling, and a moderate price-list which should not make a good product prohibitive. A comprehensive Wine and Fruit Pest Act, and a strictly enforced Food Adulteration Act, are also deemed necessary. In order to perfect the knowledge of vignerons in the manufacture of wine, it is suggested that a College of Viticulture, on a basis similar to that of the Agricultural College, should be established for the purpose of imparting to intending wine-growers a capable training. The college should be under the direction of a competent viticulturist, should have attached to it a vineyard of some extent, and should be furnished with a well-organised cellar, and an œnological laboratory, where analyses of must wine and every experiment relating to wine-making could be conducted, with a view to subsequent publication of results. Were these suggestions carried into effect, there can be little doubt that there would be a marked improvement in the prospects of the wine industry.

TABLE-GRAPES AND RAISIN-FRUITS.

The culture of grapes is not restricted to the production of fruit for the purposes of wine manufacture only, for a considerable area is devoted to the cultivation of table-grapes, particularly in the neighbourhood of Sydney, and in Ryde, Parramatta, and other districts of Central Cumberland. The extent of country devoted to this branch of the industry in 1892–3 comprised 2,211 acres, with a production of 5,916 tons of grapes, giving an average of 2·7 tons of fruit per acre. In 1893–4 the area yielding table-grapes was 2,131 acres, with a production of 3,216 tons, or an average yield of 1·5 tons to the acre. This showed a marked diminution in yield per acre, together with a decrease in the area under culture. In 1894–5 the number of acres cultivated numbered 2,358; and the production was 4,617 tons, or an average yield of about 2 tons to the acre; in 1895–6 the area increased to 2,487 acres, and the production fell to 4,017 tons, the average yield being 1·6 tons per acre; while in 1896-7 there was a further increase in area to 2,693 acres, but there was a still smaller yield, namely, only 2,885 tons, giving an average of 1·1 ton per acre.

So far no effort has been made in New South Wales to prepare raisin-fruits for foreign consumption, although there are undoubted possibilities for a large export trade in this direction. In Victoria and South Australia, settlements have been founded at Mildura and Renmark for the purpose of cultivating, drying, and preserving fruit on a large scale, both for a local and an export trade, similar to the industry as it is conducted in California, where the lands are artificially irrigated, and the efforts of nature are seconded by the discoveries of modern science. Experiments made in drying grapes and currants of Australian culture have met with success in the London markets, and experts have declared the product to be of the highest quality. New South Wales is, perhaps, even more favourably situated for the prosecution of this industry than either of the sister colonies, and with the extension of settlement, and the falling out of cultivation of such products as are more cheaply grown in other and more suitably climatic parts of the world, the building up of a large export trade in raisins, muscatels, dried currants, figs, and other staples peculiar to the isles of the Levant and the Grecian peninsula, may confidently be expected.

CITRUS FRUITS.

The cultivation of the orange and the lemon has become one of the principal industries of the districts surrounding the metropolis. The first orange groves were planted near the town of Parramatta, and soon spread to the neighbouring districts of Ryde, Pennant Hills, Lane Cove, the whole of Central Cumberland, the valleys of the Hawkesbury and Nepean Rivers, and the slopes of the Kurrajong Mountains.

Statistics relating to this branch of fruit culture are available only from the year 1879. At that date the area under oranges and lemons was recorded as 4,287 acres; this had increased in 1893 to 11,158 acres, including a productive area of 8,661 acres, with a yield amounting to 10,383,990 dozen oranges, giving an average of about 1,200 dozen per acre. In 1894 the extent of land under citrus fruits amounted to 11,967 acres, and included a productive area of 9,237 acres, with a yield totalling 9,600,290 dozen, or an average of about 1,040 dozen to the acre. The area under orange and lemon trees in 1895 comprised 12,204 acres; the productive area, 9,242 acres; and the total yield, 8,703,252 dozen, or an average of 940 dozen to the acre. In 1896 the area declined to 11,956 acres, of which 8,759 were productive, yielding

5,954,940 dozen oranges, or an average of 680 dozen per acre. Although the total area increased to 12,489 acres in the following season, there were only 8,359 acres returned as productive, and the yield was but 5,845,900 dozen oranges, the average being 700 dozen per acre. It is estimated that over 3,000 dozen of fruit to the acre can be obtained in an average season from fair-sized trees in full bearing, and it is therefore probable that the figures given include the production of a considerable number of young trees.

The number of orangeries cultivated during the year 1896-7 was 2,019, and of these the average area was nearly 6·2 acres. The state of the industry in each year since 1879 is shown in the subjoined statement:—

Year ending 31st March.	Area of Orangeries. Acres.
1879	4,287
1880	5,106
1881	5,939
1882	6,301
1883	6,716
1884	7,268
1885	6,911
1886	7,733
1887	7,920
1888	8,875
1889	10,851
1890	9,804
1891	11,288
1892	11,370
1893	11,158
1894	11,967
1895	12,204
1896	11,956
1897	12,490

The production of oranges has already attained such proportions that the growers are obliged to seek markets abroad for the disposal of their produce, as the demand, both in New South Wales and in the adjacent colonies, is in some seasons exceeded by the supply. Efforts have of late been made to open up a market in England, as the fruit can be delivered in London at a time when the supply of oranges from Spain and other countries of the northern hemisphere has ceased. An experimental shipment of New South Wales oranges was made by the Board of Exports in the course of 1896, the result being generally regarded as very satisfactory. The fruit were landed in London in the month of September, when the market was rather bare, the season for Denia and Valencia oranges—which form the chief supply of the metropolis—beginning about the middle of October and lasting till the end of June. The packing was generally good, while the fruit which were well and firmly packed in white paper are declared to have looked very nice when opened, and the agents in whose hands the shipment was placed for disposal recommend the use of tissue paper only for packing, and the avoidance of soft shavings, sand, and pumice dust. Of the 1,740 cases, 15 were taken in the hold of the mail steamer "Ophir," and these opened unsatisfactorily. The remaining 1,725 cases were carried in the cold-storage chambers of the vessel, and the freight was consequently very high, averaging for the whole shipment 3s. 11d. per case. Despite this heavy charge, however, a net profit of £143 10s. 7d. was cleared on the transaction, equal to a return of 14·7 per cent. The fruit cost £487 10s. 6d.; freight amounted to £343 13s. 4d., and other charges to

£168 12s. 1d., making a total sum of £999 15s. 11d., which was reduced to £968 4s. 7d. by returns from the sale of culls, etc. The oranges realised £1,195 15s. 6d., from which fell to be deducted £84 0s. 4d. for commission and charges in London, leaving the proceeds at £1,111 15s. 2d., or, as already stated, £143 10s. 7d. in excess of the total cost.

Generally speaking, however, the export of oranges has not met with very great success, owing to imperfect sweating and bad packing. Experts declare that in curing citrus fruits for export the shrinking is not more than from 15 to 25 per cent., and that to pluck crops in June and July and so treat them not only relieves the tree of a burden of fruit during the period when another yield is preparing, but obviates the glutting of the local market with the ripened product. If the fruit is suffered to hang until December, the strain on the tree is excessive, and its vitality is seriously impaired. It is, moreover, stated that the neglect on the part of growers of citrus fruits in New South Wales to pull and prepare the early product has resulted in the lemons grown in this colony being driven out of the markets of Victoria and New Zealand by cured Sicilian and Mildura varieties. In 1896 the export of oranges was estimated at 5,500,000 dozen; but though the trade is at present so small, its prospects, like those of other industries, are regarded as by no means discouraging. It is hoped also that in time there may be established, in connection with the orangeries of New South Wales, manufactories for the preparation of candied citron, orange, and lemon peels, as well as of oils and essences of citrus fruits. The crystallization of mandarins may likewise be an industry of profitable future prosecution; and with the introduction and acclimatization of the Seville orange there should be no reason why Sydney should not rival Dundee in the production of marmalade. Unfortunately, the proverbial antagonism of the Briton to culture of any fruit, cereal, or fabric-plant unknown to the climatic zone of his native land, has hitherto injuriously operated against the introduction of many vegetable staples which experiment and experience have amply demonstrated would flourish luxuriantly in Australia, to the advantage both of the individual and of the community.

ORCHARDS AND FRUIT GARDENS.

For some years past there has been but little increase in the acreage under orchards and fruit gardens. In 1889–90, the year when orchards and land under cultivation to dessert and other fruits, exclusive of orangeries and vineyards, were first distinguished from gardens devoted to the cultivation of vegetables and general market-garden produce, the total area so tilled amounted to 18,867 acres, and of this area 7,167 acres were situated in the metropolitan county of Cumberland. In the agricultural year ending 31st March, 1897, the area similarly cultivated amounted to 32,555 acres, showing an increase during the seven years of 13,688 acres. The area under orchards and fruit gardens in the county of Cumberland, including both productive and unproductive holdings, is now 14,193 acres, or an increase of 7,026 acres on the figures of 1890. Notwithstanding this advance, the fruit-production of New South Wales is still far behind the demands of local consumption. The colony, therefore, is obliged to import large quantities, the greater part of which could be successfully grown within its own boundaries. Leaving out of the question the considerable importations of tropical fruits from Fiji, the South Sea Islands, and Queensland (and some varieties could most certainly be cultivated in the tropical portion of New South Wales), the introduction of fruit from abroad is still greatly in excess of the moderately-estimated possibilities of local production.

The following table shows the area under orchards and fruit-gardens, exclusive of orangeries and vineyards, together with the total value of each year's yield, for the period during which statistics relative to this subject have been collected :—

Year ended 31st March.	Area of Productive Fruit-gardens and Orchards.	Area of Fruit-gardens and Orchards not bearing.	Total area cultivated for Fruit-gardens and Orchards.	Total value of the Production of Fruit-gardens and Orchards.	Approximate average value per acre.		
	acres.	acres.	acres.	£	£	s.	d.
1890	14,342	4,525	18,867	185,012	12	18	0
1891	16,081	6,274	22,355	213,934	13	6	0
1892	16,606	7,424	24,030	211,790	12	15	0
1893	18,117	8,163	26,280	229,425	12	13	0
1894	19,330	7,663	26,993	197,374	10	4	0
1895	21,465	8,258	29,723	175,473	8	3	0
1896	20,635	8,145	28,780	130,735	6	7	0
1897	24,031	8,524	32,555	159,715	6	13	0

From the foregoing table it will be seen that the value of the total production was highest during the agricultural season 1892–3, but the approximate average value per acre was highest for the year 1890–1. The agricultural season 1895–6 showed a decline in the value of the total production of orchards and fruit gardens amounting to £44,738 from that of the previous year, to £66,639 from that of 1894, and to £98,690 from that of the year 1893; while the approximate average value per acre of the season declined by £1 16s. from that of 1895, and by £6 19s. from that of 1891, the year of the series showing the best returns in this particular. In 1896–7, however, there was an improvement to the extent of £28,980 in the total value, and of 6s. per acre in the average value. The approximate average annual value for the eight years extending from 1890 to 1897 was £7 3s. per acre. It will be noticed that while there has been an advance in the productive area, that described as not bearing appears to have remained for several years almost stationary; the total amount of new land put under orchard and fruit crops, other than oranges, lemons, and grapes, during the seven years ending 31st March, 1897, was, however, recorded as 11,122 acres, or an average of 1,589 acres per annum. The subjoined statement shows the amount of acreage of the productive area under fruit-gardens and orchards for each of the eight years under notice, the acreage added from year to year from areas previously not bearing, and the new land put each season under this form of cultivation:—

Year ended 31st March.	Productive area of Fruit-gardens and Orchards, from preceding year.	Area added from Fruit-gardens and Orchards previously unproductive.	Total Productive Area.	Area of Fruit-gardens and Orchards not bearing, remaining from previous year.	New land put under cultivation to Fruit-gardens and Orchards.	Total area not bearing.	Total area under cultivation to Fruit-gardens and Orchards.
	acres.	acres.	acres.	acres.	acres.	acres.	acres.
1890	14,342	......	14,342	4,525	......	4,525	18,867
1891	14,342	1,739	16,081	2,786	3,488	6,274	22,355
1892	16,081	525	16,606	5,749	1,675	7,424	24,030
1893	16,606	1,511	18,117	5,913	2,250	8,163	26,280
1894	18,117	1,213	19,330	6,950	713	7,663	26,993
1895	19,330	2,135	21,465	5,528	2,730	8,258	29,723
1896	21,465	*830	20,635	8,258	*113	8,145	28,780
1897	20,635	4,396	24,031	8,145	379	8,524	32,555
Total	....	10,689	....	....	11,122	....	....

* Gone out of cultivation.

From the figures just given it will be seen that 10,689 acres have been added to the productive area, during the period, out of 11,122 acres of new land put under cultivation.

For the year 1896 the value of the imports of bananas, principally from Queensland, the New Hebrides, and Fiji, amounted to £63,885; of pine-apples, nearly all of which came from Queensland, to £8,441; of other green fruit, mostly from Tasmania, to £181,444; of dried and candied fruit—including currants and raisins (£64,692), dates (£7,897), cocoanuts and other edible nuts—to £103,962, of which the United Kingdom supplied £40,060; and of bottled fruits and fruit boiled or in pulp, to £9,540; or a total for the year of £367,272. From this must be deducted the value of the re-exports of foreign-grown fruits from New South Wales during the same period; and this amounted to £47,072, including green fruits of various kinds to the value of £29,692. The net value of the importations of foreign-grown fruit into New South Wales during 1896 was, therefore, £320,200, or £101,047 higher than in the preceding year, £123,772 higher than in 1894, and £103,153 higher than in 1893. The export of locally-grown fruit during 1896 amounted in value to £100,092, which was almost wholly made up of green fruit, the chief customers of the colony being Victoria, Queensland, and New Zealand. The value of the domestic production for the agricultural season 1896–7, including oranges and grapes for table use, may be set down at £298,000; the value of the imports for the year 1896 was £367,272, and of the exports £147,164. The local consumption of fruit for the year was, therefore, valued at £518,000, or £111,000 more than that of 1895. The colony's contribution of fruit to its own wants was valued at £198,000—an amount showing an increase of £10,000 on the figures for 1895.

If to the results just given be added the net imports of canned fruits, jams and jellies, ginger, and other preserves of foreign production, the balance of exchange in fruit commodities will be further modified. The net imports of these commodities may be set down for 1893 at £16,503; for 1894 at £14,410; for 1895 at £8,630; and for 1896 at £28,220. The imports for local consumption of all fruits and fruit products, fresh, dried, canned, candied, preserved, boiled, in pulp, and bottled, would amount, in 1893, to £233,550; in 1894, to £210,838; in 1895, to £158, 797; and in 1896, to £248,328—a sum which is far too large in view of the colony's natural resources, both of soil and of climate. It must be admitted that New South Wales is far in the rear as a fruit-producing country, and the names of the lands from which she derives so large a portion of the fruits and fruit-products locally consumed are convincing of the fact, seeing the range of climate and varying qualities of soil possessed by the colony, which are in many cases also identical with those of the fruit-importing countries mentioned, that, with some few exceptions, there could be produced all the fruit demanded for local consumption.

Fruitgrowers, however, may look beyond the prospect of supplying the country's requirements in fruit products with those locally grown. The success which has attended the export of fruit from Tasmania has shown orchardists in this colony that they may find it more profitable to grow with a view to exporting to England than to place their product in a glutted market at home; and it needs only a few successes in London to cause a development of the trade. During the past few years the dried fruits prepared at Mildura have made a good impression in England, and demonstrated the possibility of profitable trade, provided all the primary conditions of careful curing and packing are scrupulously and undeviatingly fulfilled. Victoria has recently opened up an experimental exportation of apples to Java and Singapore; and shippers in the neighbouring colony consider that they have discovered an ideal packing material in the shredded bark of the tea-tree, which has been used also with great success as a packing medium for passion-fruit, consignments of the latter having reached London in an excellent state of preservation. There are, indeed, great possibilities in the matter of an export trade in fruit, not from New South Wales alone, but from all the Australasian colonies, when shippers have learnt how to dry and pack their consignments in such a manner as to ensure soundness and preservation of flavour during the voyage. At present, as in the wine-growing interest, the fruit industry has suffered, not so much from lack of foreign appreciation and interest, as from the inexperience of those engaged in the trade.

The subjoined table shows the productive, non-bearing, and total area under cultivation to dessert, table, and preserving fruits, exclusive of grapes, oranges, and lemons, together with the total value of the season's returns, the average value of the yield per acre, and the number of cultivators engaged, arranged according to the geographical divisions into which the colony has been divided for purposes of comparison :—

Division of the Colony.	Productive Area.	Area not yet bearing.	Total area.	Total value of production.	Average value per acre.		
The Coast—	acres.	acres.	acres.	£	£	s.	d.
Northern District	694	243	937	4,975	7	3	0
Hunter and Hawkesbury Valleys	2,975	1,268	4,243	19,433	6	11	0
County of Cumberland and Metropolis	10,830	3,363	14,193	74,278	6	17	0
Southern District	1,841	863	2,704	10,203	5	11	0
Total	16,340	5,737	22,077	108,889	6	13	2
The Table-land—							
Northern District	1,500	446	1,946	9,690	6	9	0
Central ,,	2,463	772	3,235	15,021	6	2	0
Southern ,,	2,901	1,168	4,069	17,662	6	2	0
Total	6,864	2,386	9,250	42,373	6	3	6
The Western Slope—							
Northern District	259	73	332	2,717	10	10	0
Central ,,	85	53	138	1,131	13	6	0
Southern District and Valley of the Murray	418	236	654	2,672	6	8	0
Total	762	362	1,124	6,520	8	11	2
The Western Plains	65	39	104	1,933	29	15	0
Grand Total	24,031	8,524	32,555	159,715	6	12	11

Of the total area under fruit orchards in New South Wales, over two-thirds are situated in the coastal belt, and nearly one-half in the metropolitan county of Cumberland. While, however, the acreage and total value of production diminish progressively with each division of the colony westward from the coastal belt, the average yield per acre is highest in the western plains and on the western slope. The total area under fruit of all kinds in New South Wales was 53,105 acres. Of this extent of land, 32,554 acres were under orchard fruits, 12,490 acres were under citrus fruits, and 8,061 acres were under grape vines.

FLORICULTURE.

Statistics regarding this branch of agriculture have not yet been collected, although there are numerous nurseries, besides private gardens, in the metropolitan county, in which flowers, plants, and ornamental trees and shrubs are cultivated purely in the interests of commerce. The climate of Sydney is warm and humid, and splendid varieties of hydrangeas, orchids, azaleas, pelargoniums, bouvardias, gladioli, chrysanthemums, dahlias, gloxinias, rhododendrons, and many other species of decorative flora, are cultivated with success. The coastal bush lands, and the valleys of the Hawkesbury and its different reaches, are explored for variegated, tree, and stag-horn ferns, and their sale forms an active part of the metropolitan horticulturist's business. Such denizens of the forests and ridges as the tiger-lily, the waratah, the stenocarpus, the flannel-flower, the Star of Bethlehem, the Christmas-bush, the wattle-blossom, and the Christmas-bell are gathered by itinerant flower-vendors and hawked at the corners of streets, besides being procurable in the nurseries and shops of florists. Landscape gardening is an important branch of the industry, and a considerable sum is annually spent in the designing and forming of grounds and gardens and in the erection of hot, glass, frame, and bush' houses. Recently flowers have attracted attention as the basis of an industry similar to that carried on in the Channel Islands and in different parts of France and Germany, viz., flower-cultivation for the manufacture of scent, an industry, however, like others mentioned in this chapter, which awaits development in a more or less distant future. Experiments in this direction are now being made at the Hawkesbury Agricultural College.

It is matter for deep regret that the colony's beautiful native flora is being gradually destroyed. It now contributes, in forming the staple of annual displays, to the reduction of the debts on churches and other institutions; and the coast-slopes and the bush-lands in the neighbourhood of every town are periodically denuded to furnish attractions to local flower-shows and charity bazaars, the well-meaning decorators of which, not content with merely plucking the blooms they require for their floral designs, tear them out by the roots, and create a waste where there was formerly a garden.

VEGETABLE OILS AND ESSENCES.

Besides the preparation of eucalyptus oil and essence, dealt with in the chapter on forestry, and the probabilities of the establishment of an industry of flower-culture for the making of scents, referred to in the preceding section of this chapter, there are a number of as yet undeveloped branches of manufacture of vegetable oils and essences, capable of almost indefinite prosecution. Chief of these are the culture of the olive, the castor-oil plant, and linseed. Oil of lemons and essence of lemons have already been touched upon in that part of this chapter which treats of citrus fruits, and, therefore, require no further reference here.

Little has been attempted in New South Wales in the culture of the olive, which not only yields a particularly valuable oil, but the fruit of which, as a pickle, constitutes a highly profitable article of commerce. In the future, however, its cultivation will be stimulated by a growing local demand. In South Australia, where the olive is rapidly becoming a staple, and where considerable areas have been placed under the trees, 10s. a gallon for the oil has been received by the growers. The soil and climate of New South Wales, in districts where the range of temperature is similar to that of the olive-growing countries which border the Mediterranean, should be no less favourable to the culture of the olive than the soil and climate of South Australia; in fact, they are claimed by some enthusiasts to be even, in certain respects, superior to the latter. In regard to what has been attempted locally by way of encouraging this industry, it may be mentioned that the Agricultural Department of the colony has had planted, at the Murrumbidgee experimental farm, eight acres of olive slips, as a nursery whence young trees may be supplied to persons in the colony desirous of essaying the culture of the olive. There is also half an acre at the Pera Bore, and a few small areas around Albury, making altogether about a dozen acres in the colony. Occasionally an application for olive trees is received by the Department of Agriculture, but none are available yet for distribution, and applicants are in the meantime referred to South Australia.

The castor-oil plant (*Ricinus communis*, or *Palma Christi*) grows luxuriantly in the humid coastal districts of the colony; as it does, indeed, in most tropical and sub-tropical countries, and in the regions bordering the Mediterranean, viz., Greece, Italy, and Spain. The annual consumption of castor oil in Australasia is over 520,000 gallons, of which 184,000 gallons represent the requirements of New South Wales. Nearly the whole of the supply is derived from India; and the average wholesale price of the oil in Sydney is about 2s. 6d. per gallon. The initial cost of establishing the industry would be heaviest in the item of machinery for expressing the oil, although the price of labour would also have to be considered carefully, as the Calcutta oil is produced at a minimum outlay in this particular. Oil can be separated from the seeds of the *Palma Christi* also by boiling in water, but though the largest quantity can thus be procured, the resultant product is apt to become rancid, a disability to which the expressed oil is not liable, hence expression of the seeds is now the process most commonly followed in manufacturing the oil.

One of the most valuable of crops is the flax (*Linum usitatissimum*), and it is matter of surprise that more persistent efforts have not been made to acclimatise it in New South Wales. The plant not only yields "lint" of two kinds—namely, the long fibre called "flax" and the short fibre called "tow"—but a valuable seed also, of the greatest use as a fodder for cattle, in the form of oilcake, of which it forms the chief ingredient; for medicinal purposes; and, above all, for the manufacture of the raw and boiled oils of commerce, known as linseed oil, which form the bases of all paint-mediums. The value of this plant can hardly be exaggerated. There is always a good demand for flax fibre, whether it be long line or coarse tow, and a lint crop is always disposable. New Zealand flax-fibre brings about £14 per ton in the Sydney market; and raw linseed oil, from 2s. to 2s. 2d. per gallon. The plant will grow and return satisfactory results in any district where wheat will or has been grown successfully, and it is an admirable rotation crop. It is most favourably cultivated in dry lands, in districts fairly free from frosts, which retard its progress and stunt its growth. In country where water is scarce fibre may be obtained from the flax-plant suitable for cordage, and lint or tow adapted to the manufacture of carriage cushions, by a process known as "dry-rotting," in which the dews and the sunshine are utilised to disintegrate the stalks. In the following table is given a list of the net imports in 1896 of various commodities which might easily be supplied, with perhaps one or two exceptions, by locally-grown flax and hemp crops:—

Commodity.	Value.
	£
Linseed oil	37,868
Linseed	1,033
Canvas	40,582
Cordage and rope	42,212
Phormium tenax	6,737
Other flax and hemp	14,048
Fibre	3,600
Total £	146,080

With the increase of population, and the development of the dairy-farming and shipping interests, the demand for linseed and the various products of the flax-plant is bound to grow. The industry has made great progress in India, the Argentine Republic, and the United States. The import of linseed into the United Kingdom during 1896 amounted to 2,578,864 quarters, valued at £4,022,676; and of linseed cake, 220,602 tons, valued at £1,162,840. Hemp (*Cannabis sativa*) could also, doubtless, be successfully acclimatised in New South Wales. It is supposed to be a native of India, but it has long since been naturalised and extensively cultivated in Italy, Russia, Poland, and America. With so large a range of habitat the difficulties of its introduction to this colony cannot be laid to the charge either of soil or of climate.

Another article of import which might, perhaps, be locally produced is that of cotton-seed oil, of which in 1896 the colony imported 38,511 gallons, valued at £3,714; but though the quantity looks small, it must be remembered that extensive domestic production would mean an increased application of the product. Moreover, cotton is a plant of so great a value to commerce that its cultivation, essayed already to some extent in Queensland, would not be undertaken for the purpose of supplying a staple for oil manufacture alone. The great difficulty which stands in the way of cotton culture is, however, the very high price of local labour as compared with that of India and some other countries; hence the colony could never hope to compete against the raw material shipped from the seaports of the Indian Peninsula to supply the looms of Manchester. Nevertheless, very small areas are cropped with cotton in the extreme northern districts of the colony; and large areas have the precise climatic and soil conditions under which cotton is grown to advantage in the United States of America. In Queensland, where its cultivation dates from the days of Dr. Lang, ambitious hopes are entertained with regard to its development in the future.

Indigo (*Indigofera tinctoria*) is a plant the future of the cultivation of which in New South Wales is looked forward to with some expectation by those who have studied its possibilities in its new habitat. There is in the colony a wild plant (*Indigofera australis*), from which it was hoped tinctorial juice might be obtained; but experiments have hitherto proved unsuccessful. The true plant which supplies the indigo of commerce occurs wild in the colony of Queensland, and there is no reason why it should not be acclimatised in New South Wales; indeed, experiments are now being conducted with a view of establishing it as a regularly cultivated crop. Indigo yields the drug from which the beautiful dye bearing its name is obtained, by maceration in water.

HOPS.

Hops are but little cultivated in New South Wales, although a few very small crops are picked in the neighbourhood of Orange. In Victoria, Tasmania, and New Zealand, however, they are successfully grown, the product being but little inferior to the celebrated Kentish hops of England. In the opinion of experts they could also be successfully grown in New South Wales, which imported during 1896 no less than 1,397,658 lb. of hops, valued at £40,701. The plant will grow in a temperate climate, free from hot winds in the summer; although frosts in winter are beneficial, particularly in nipping the growth of young shoots, and thus forcing the vitality of the plant into the bines and fruit during their proper season. Plantations of hops should be cultivated in the close neighbourhood of townships and villages, in order to secure the labour of women and children in tying up bines, and branching and picking the hops when ripe. The districts specially adapted for the cultivation of the hop-plant are Armidale, Orange, Goulburn, and Cooma.

FAILURE OF CROPS.

During the agricultural year ended March, 1897, there were 5,401 cases of total or partial failure of crops, affecting an area of 127,660 acres. Of these, 4,085 were due to drought, more particularly affecting the wheat crops on the southern and central table-lands. The total area affected by drought was 110,346 acres, of which the area sown with wheat for grain comprised 59,059 acres, and for hay, 33,306 acres. The next largest area affected by any single cause was 5,753 acres by blight, 4,304 acres of which were under wheat crops. There were 271 cases of failure, over an area of 2,423 acres, of which the causes were not specified, but they affected chiefly the wheat and fruit crops in the southern and central districts. In the northern coast districts sugar-cane suffered a little from frost. The ravages of rabbits and hares were the cause of 135 cases of failure of crops, covering an area of 4,441 acres, nearly all of which were situated in the wheat-lands of the colony. The number of cases of rust reported for the last season is small, only 22 instances of loss, affecting an area of 216 acres, being recorded. Hailstorms ruined crops in 202 cases, over 1,338 acres, principally on the central highlands. From bush fires no losses were recorded, and the area affected by floods and excessive rain was very small. In 36 cases the failure of crops, cultivated over 215 acres, was caused by vermin. For the last three seasons only has the acreage of the crops which have resulted in failure been obtained, and the figures are given below, together with the number of instances of failure from each cause :—

Causes of Failure.	Number of Failures.			Acreage affected.		
	1894–5.	1895–6.	1896–7.	1894–5.	1895–6.	1896–7.
Drought	1,210	12,779	4,085	31,342	228,154	110,346
Flood	1,703	825	31	23,250	8,898	126
Excessive rains	609	46	32	19,843	696	347
Rabbits and hares ...	202	80	135	6,179	1,458	4,441
Rust	30	29	22	2,559	690	216
Hailstorms	165	130	202	1,769	1,895	1,338
Blight	132	81	229	1,475	620	5,753
Bush-fires	10	14	......	451	264	......
Vermin..................	43	27	36	294	118	215
Frosts	66	472	356	252	3,563	2,449
Locusts	4	8	2	17	243	6
Causes not specified.	569	199	271	8,774	1,697	2,423
Total............	4,743	14,690	5,401	96,205	248,296	127,660

A reference to the figures just given shows that rabbits and hares during the last three years nearly equal, in the area ascribed to their devastations, the ravages occasioned by rust, hailstorms, frosts, and bush-fires put together; and it must be remembered that the figures given do not represent all the injury to crops wrought by these vermin, for a considerable percentage of the losses in the colony's wheat-lands from causes unspecified, particularly in the southern districts, may justly be laid to their charge.

Below will be found a statement showing the area under each crop destroyed during the last three years :—

Description of Crop.	1894-5.	1895-6.	1896-7.
Grain Crops—	acres.	acres.	acres.
Wheat	53,732	111,754	68,866
Maize	22,724	28,100	6,783
Oats	1,229	4,065	791
Rape	197	117	79
Barley	330	1,805	509
Millet	75	130	48
Rye	13	123	12
Total	78,300	146,094	77,088
Hay Crops—			
Wheaten	6,145	54,586	35,022
Oaten	4,978	32,427	7,681
Lucerne	1,444	2,602	1,811
Barley	87	549	210
Total	12,654	90,161	44,724
Root Crops—			
Potatoes	830	1,021	582
Onions	25	78	22
Turnips	7	29	21
Mangold-wurzel	3	10	5
Total	865	2,638	630
	acres.	acres.	acres.
Sugar and Tobacco Crops—			
Sugar	2,586	3,400	1,771
Tobacco	92	141	8
Total	2,678	3,541	1,779
Fruit Crops—			
Grapes	439	532	683
Oranges	79	552	221
Other fruits	654	3,615	1,904
Total	1,172	4,699	2,808
Kitchen Garden, Produce, &c.—			
Pumpkins and melons	370	487	196
Produce of market gardens	145	1,103	402
Peas and beans	9	136	25
Total	524	1,726	623
All other Crops	12	37	8
Grand Total	96,205	248,296	127,660

SERICULTURE.

Much attention has, during the past few years, been given to the possibilities of silk culture, and experiments in this direction have been attended with a fair measure of success. When the notice of the public was first directed to the industry, mistakes were made in obtaining eggs prior to making provision for the subsistence of the worms, and consequent failures dashed the hopes of the inexperienced enthusiasts who so unpreparedly essayed the culture of silk. In the neighbouring colony of Victoria efforts are also being made to encourage farmers to add sericulture to their minor industries, and expectations are entertained of future large shipments of cocoons, as, for some years to come, little prospect of manufacturing silk locally can be entertained, the colony lacking the experience of skilled labour, and the complex appliances of modern machinery.

The first practical step towards acclimatising the production of silk is the placing under cultivation to the white mulberry (*Morus alba*), sufficient land to grow the only food for the worms which makes systematic sericulture possible. The caterpillars, called "silkworms," will live on the leaves of various kinds of trees, but it is only when they are nourished on the leaf of the white mulberry tree that they will form cocoons of a marketable value, capable of furnishing silk suitable for the looms of the manufacturer.

The varieties of white mulberry best adapted to the demands of the cultivator anxious for immediate results are *Morus alba vulgaris*, sub-variety *Macrophylla* (*Morettiana*), and the *Morus alba latifolia* (*Multicaulis*), the young trees of which supply an abundant crop of leaves of good quality, useful during the early life of the silk-worm, though not the best for the completion of the process of silk-culture. They also form excellent stocks for budding with the varieties having more substantial leaves, such as the *Morus alba vulgaris*, sub-variety *Rosea*, and the *Morus alba Italica*. If farmers would, in addition to their other crops, cultivate about 2 acres of white mulberry-trees, they could, in the third year of growth from seed, begin experimenting in earnest upon the rearing of worms. With a unit of force, comprising a half-grown family of about eighty individuals, the appropriate unit of cultivation would represent a plantation of about 2 acres of white-mulberries, bearing some 5,000 trees. After removal and thinning out, the farmer should have, in their third year of growth, 2,500 trees, which, if they have thriven, should yield from a pound to two pounds of leaves each, or, altogether, from a ton to two tons. The cultivator is then in possession of enough raw material, in the form of mulberry-leaves, to produce from 1 cwt. to 2 cwt. of cocoons, which, if of good quality, would be worth £4 or more per cwt. Arrangements for housing silk-worms need not be very elaborate. Walls of wattle-and-dab, smoothed and white-washed inside, with a roof of thatch, constitute an ideal silk-worm house. Should the producer desire to limit the area under mulberries to 2 acres, he will find that his annual yield will be a fairly steady crop of from 5 to 7 cwt. of cocoons. The produce of silk-worms fed from 2 acres of trees will not materially increase in amount, because with increased age the white mulberry takes up more and more room, and consequently requires successive thinnings-out, until in the course of years there will remain only some 200 or 300 trees to the acre. According to authorities, the yield of leaf per acre in France and Italy, from well-grown trees on fair land, is estimated at from 7,000 to 8,000 lb. The first step in sericulture, viz., the formation of white mulberry-tree plantations, is one the results of which have to be waited for; and this is the reason why so promising an industry has not obtained a better foothold in the colony. Of course, people have endeavoured, and continue in their endeavours, to rear silk-worms without first growing proper food for them; but every such attempt at silk-production has failed, and is, in fact, foredoomed to failure.

Recently the attention of the public has been more strongly directed to the possibilities of sericulture by the labours of the Agricultural Department, some thousands of trees and cuttings having been planted during 1894. Little can be done, however, until these trees mature, as there is scarcely a single locality in the colony, at the present time, where there can be found leaf-bearing trees sufficient in number to carry worms in payable quantities. At Booral, in the Newcastle district, the Government has rented a white mulberry plantation, extending over seven acres, with a view of testing the practicability of developing a profitable sericultural industry. On the expiration of the lease at Booral it is intended to continue the experiment at the farm attached to the Hawkesbury Agricultural College, in which locality a large number of white mulberry-trees have been planted for future use. During the year 1894, Parliament voted a special grant of £200 in aid of the Women's Co-operative Silk-growing and Industrial Association; but it is in the extension of the plantations of white mulberry trees that we must look for the real growth of the sericultural industry, which is as yet in only its initial stages. A convincing effort in this direction has been made by the settlers of New Italy, near the Richmond River. These people comprise a number of Italian families, who came out with the Marquis de Ray to settle on the island of New Ireland, and who, on the failure of their leader's scheme of colonization, arrived in the colony of New South Wales in the year 1881. These immigrants have planted successfully a considerable area with white mulberry trees, and have initiated the industry of silk-production in the region of the northern rivers with fair prospects of its future profitable development. The silk is spun by the caterpillars of the genus *Phalæna*; of which the *Phalæna atlas* produces the greatest quantity, but the *Phalæna bombyx* is that commonly employed for this purpose in Europe. The best modern silkworms are obtained from Japan and Italy.

POULTRY FARMING.

Besides the casual barn-door fowls that run in the stack-yards of most farms, the produce of which is devoted chiefly to family consumption, many agriculturists make a special business of rearing and breeding fowls, both for egg-production and for the table; others, again, are poultry-farmers pure and simple, who give all their time and energies to the industry; while yet a third class, to be found only in the immediate neighbourhood of the big towns, and most of them in the metropolitan county of Cumberland, make of the breeding of selected and pure-strain types of birds a study, which meets with its reward in the prize show-pens of agricultural shows.

It is now several years since an exact estimate was made of the number of poultry in the colony. Adjusting the figures to the present year, the number of the principal kinds would be approximately as follows:—

Fowls	3,180,000
Ducks	320,000
Turkeys	234,000
Geese	97,000

The number of persons keeping poultry is 121,000, but, as may be surmised from the figures just given, the great majority of poultry-keepers own but few birds.

The annual production of eggs reaches about 90,000,000, but this quantity is not quite sufficient for local consumption, as there is an import which, in 1896, amounted to nearly 3,500,000 in excess of the export. The annual consumption of poultry may be approximately set down at 2,000,000 fowls, 275,000 ducks, 200,000 turkeys, and 75,000 geese.

ENSILAGE.

Although the value of ensilage as fodder for cattle is generally acknowledged, this valuable method of preserving green foods is not so extensively practised as it should be in a country liable to long periods of dry weather, as is New South Wales. The industry has attained so slight development that an extended notice is not called for ; it may suffice to say that the use of silos is confined chiefly to the South Coast district and the table-land, and has not yet extended to the western slope of the mountains, or to the western plains, where it would seem to be most required. During the agricultural year ending 31st March, 1897, the total production of ensilage was 13,498 tons from 108 silos, the number of silos being more than double that of the previous year, and the production nearly four times as great.

HONEY FARMING.

The industry of honey production has acquired sufficient importance in New South Wales to deserve notice in these pages. Hives are not only kept on many of the farms devoted to general agriculture, but there are also in the colony a certain number of establishments of which the sole business is the production of honey and beeswax. Most of the latter are to be found in the Blue Mountains, near the main Western Line of Railway, in the neighbourhood of other main trunk lines, and in the districts surrounding the metropolis. The number of hives in the colony, and their production of honey and wax for the past seven years, are shown in the subjoined table. Of the hives given for 1894, 1895, 1896, and 1897, there were 8,790, 13,355, 10,350, and 9,343 respectively returned as unproductive:—

Year ended 31st March.	Hives.	Production.		Total Value.
		Honey.	Wax.	
	No.	lb.	lb.	£
1891	35,749	765,332	23,610	10,780
1892	39,728	894,583	33,786	12,850
1893	48,204	1,395,350	48,178	19,400
1894	53,483	1,139,557	39,242	16,100
1895	49,040	1,135,128	29,326	15,500
1896	37,742	1,123,209	27,520	14,200
1897	41,900	1,378,039	31,842	18,150

The average yield for the season ending March, 1897, from 32,557 productive hives, was 42·3 lb. of honey per hive; and the total yield showed an increase of 254,830 lb. of honey and 4,322 lb. of wax from the production of the preceding year. During 1896 New South Wales imported 68,020 lb. of honey, valued at £1,117, but the import consisted largely of supplies for the Barrier district from South Australia. The quantity exported by New South Wales in the course of the year amounted to 24,437 lb., valued at £314, of which 15,792 lb., valued at £202, went to Belgium. The total quantity of honey exported from the Australasian colonies during the past six years is shown below. In 1896 South Australia exported 572 lb. to the United Kingdom, 101,422 lb. to Western Australia, and 34,488 lb. to New South Wales; while Victoria, in which colony the export was stimulated by a bonus of 1d. per lb., sent 8,960 lb. to the United Kingdom. The total exports to the United Kingdom of the five colonies shown in the table below fell from 344,694 lb. in 1895 to 60,724 lb. in 1896.

Colony.	1891.	1892.	1893.	1894.	1895.	1896.
	lb.	lb.	lb.	lb.	lb.	lb.
New South Wales..........	2,451	7,543	6,620	13,241	12,504	2,640
Victoria	52,070	31,154	17,426	14,571	204,435	8,960
Queensland	15,608	64,754	18,636	18,214	22,546	4,760
South Australia	32,948	30,582	33,097	86,112	246,533	572
New Zealand.....	197,261	74,070	32,712	43,888	52,976	43,792

The adulteration of honey is probably one of the greatest troubles at present confronting the bee-keeper. It is asserted by those having a knowledge of the business that fine amber-coloured honey does not meet with such a ready sale with agents as the darker varieties, because the latter admit of a very much greater quantity of glucose being used in their adulteration.

Several small shipments of New South Wales honey made to England turned out unsatisfactorily, and the Australian product generally has acquired a bad reputation. It is only right to say that this has been accounted for in two ways, one of which is the cry maintained by the English producer for the purpose of excluding colonial imports from competition with local products, a similar attempt having been made with regard to Australian meat, butter, and other articles. The other, and by far the more serious one, however, is that the honey exported to England has frequently been of the worst quality, and locally unsaleable. Good quality has found a ready sale, but it is disposed of as American, Continental, or English, while the inferior article has been identified with Australia. While the Government of Victoria granted a bonus of 1d. per lb. on honey exported to ports outside of Australasia, they stipulated that the product should arrive at the port of destination in a good and marketable condition, and this must have had the effect of enhancing the reputation of the Australian article, if Victorian honey is sold as such.

AGRICULTURAL IMPLEMENTS.

The estimated value of implements used on the various farms is £1,517,200—that is to say, 18s. 3d. for every acre cultivated, excluding fallow lands and lands laid down in permanent grasses. This estimate does not include the value of carts, of machinery for dressing grain, or of anything not actually used in the various processes of tillage and harvesting. The value of plant of all kinds used on farms is approximately £2,280,000.

IRRIGATION.

The immense areas of rich land in parts of New South Wales which have a fair average rainfall, have little more than commenced to be utilised for cultivation. It is, therefore, only natural that irrigation should have received comparatively little attention. The two directions in which it has been, as a rule, found most valuable are as an adjunct to pastoral occupation, and as a means of growing fruit in places where the rainfall is irregular and insufficient. Pumping engines have been erected for supplying water for these purposes on every important river throughout the colony, and, in addition, on many creeks; and though the areas irrigated are comparatively small, the results have been highly satisfactory in all cases where the conditions as to soil, etc., are suitable.

The Water Conservation Branch, which now constitutes a branch of the Department of Works, was engaged for a number of years in carrying out the surveys, levels, and discharge observations necessary before arriving at a conclusion as to what can and should be done in regard to water conservation and irrigation throughout the colony. The Branch also prepared, in outline, schemes for irrigation on a large scale from the Murray and Murrumbidgee Rivers, and the proposed canal on the south side of the Murrumbidgee was actually staked out.

In order to obtain the best advice available, the Government decided during 1896 to engage the services of Colonel F. J. Home, R.E., C.S.I., formerly Inspector-General of Irrigation in India. Colonel Home spent twelve months in the colony, and during that time visited all the principal rivers of the interior, and inspected the sites of the principal schemes proposed. In his report, which has recently been submitted to the Minister, Colonel Home gives the opinion that there are only two rivers in this colony from which irrigation can be carried out on an extensive scale, and even in these cases he recommends that storage works should be constructed in the mountains to supplement the low river supplies. He recommends caution in regard to the construction of irrigation works, but considers that the canal on the south side of the Murrumbidgee, which was recommended some years ago by the Water Conservation Branch, promises better results than any other large irrigation work which can be undertaken. Next to the proposed Murrumbidgee Southern Canal, Colonel Home recommended that a canal from the river Murray, at Bungowannah, should be dealt with; but he considers that this work should await the results and the experience to be gained by the construction of the former.

Colonel Home believes that there is a fair prospect of the irrigation works at Hay and Wentworth proving remunerative, and considers that in that case the proposed works at Balranald should be proceeded with.

The Water Rights Act, which has been in force since 1st November, 1896, and which is administered by the Water Conservation Branch, has proved to be even more useful than was anticipated. Previous to its being passed, dams and other works on rivers and creeks existed on sufferance only, but under the Water Rights Act all rivers, creeks, and lakes are vested in the Minister for Works, who is empowered to grant licenses for works after making due inquiry. Up to date the number of licenses applied for is nearly 600, and it is a very satisfactory feature that the security now provided is inducing many landholders to undertake new works, including both dams and pumping machinery.

It is worthy of special mention in connection with the question of water conservation and irrigation that the lock and weir constructed at Bourke in the river Darling has been very satisfactory in its working. In time of low river the weir holds back water to a distance of about 40 miles, and in flood time the shutters of which it is composed are dropped on the river bed.

CULTIVATION AT TRIAL STATIONS.

At some of the bores and tanks owned by the State, experimental cultivation by means of irrigation with artesian and catchment water has been most successfully conducted; and lucerne, maize, wheat, tobacco, sugar-cane, date-palms, bananas, and many other tropical and sub-tropical products have been grown satisfactorily. At the Pera Bore an area of 640 acres has been subdivided into 20-acre blocks, and offered on lease as irrigation farms; and the experiments in the plantation of fruit and forest trees, date-palms, sugar-cane, cereals, grasses, potatoes, etc., have been so successful that all the blocks but two have been taken up, and good results are being obtained. At the Moongulla Bore a similar scheme is also being carried out; and it is intended to extend operations in this direction to the Moree, Woolabrah, Tenandra, and Euroka bores. There are plantation trial stations now in existence at the Native Dog, Barringun, and Belalie Bores, on the road from Bourke to Barringun; at the Enngonia Bore, the Coolabah Tank, and the Byerock Tank; at the Waddell Tank, on the road from Bourke to Byerock; at the Moongulla Bore and the Dungle Ridge Bore, on the road from Collarendabri to Angledool; and at the Pera Bore, on the road from Bourke to Wanaaring.

The use of artesian water for wool-scouring is now an accomplished fact, its suitability being abundantly proved by the operations which have been carried out on a large scale, during the past two seasons, at Moongulla, 1,600 bales having been scoured there last year.

AGRICULTURAL COLLEGE AND EXPERIMENTAL FARMS.

The importance attached by the State to the diffusion of agricultural knowledge is evidenced by the formation of a special Department of Agriculture. The question of providing technical agricultural education, and establishing a college and model farms in various parts of the colony, immediately engaged attention, and a site suitable for a central establishment was selected at Ham Common, near the town of Richmond, in the Hawkesbury District, where an area of about 4,000 acres was resumed for the purpose. The buildings and furnishings of the College and Farm, now in their sixth year of existence, were completed in January, 1896, and officially opened on the 14th April of the same year. Accommodation is provided for ninety-six resident students, and during 1896 there was a full roll. Theoretical as well as practical instruction is imparted by experts in every branch of agriculture; and experimental work is carried on with cereal and other crops; fertilisers are tested, analyses of soils are made, and the arts of dishorning and speying cattle, with other veterinary surgical practices, are taught. The live stock attached to the Farm and College during 1896 comprised 35 horses, 139 bullocks, 228 head of dairy cattle, 207 pigs, and 40 sheep. The principal operations during the same period are shown in the subjoined statement:—

Crop.	Acres.	Yield per Acre.	Crop.	Acres.	Yield per Acre.
Wheat for Grain	8	22½ bushels.	Oranges (not bearing)	4	....
,, Hay	106	1 ton.	Other Fruit Orchards	19	£7 7s.
Maize for Grain	66	20 bushels.	,, ,, (not bearing)	9	....
,, Silage	154	3 tons.	Grape Vines for Wine	2	....
Barley for Grain	6	12 bushels.	,, ,, Fruit	8	1 ton.
,, Green Food	15	....	Potatoes	6	4 tons.
Oats for Grain	31	15 bushels.	Turnips	15	7 tons.
,, Hay	66	1 ton.	Mangold-wurzel	5	8 tons.
Lucerne for Hay	24	¼ ton.	Tobacco	3	20 cwt.
,, Green Food	16	....	Market Garden Produce	6	£16 13s. 4d.
Sorghum ,,	19	....	Peas and Beans (dry)	3	4 bushels.
Hungarian Millet	11	Fed off.	Pumpkins	40	30 cwt.
Mulberries	12	......	Melons	12	60 dozen.
Rape	26	Fed off...	Cow Pea..	18	Fed off.

An orchard, 30 acres in extent, and a vineyard, 10 acres in extent, have been planted in connection with the Agricultural College; and the cultivation of plants for the expression of scent has also been begun. In connection with the dairying industry prosecuted at the Farm, it may be mentioned that the milk-yield for 1896 was 33,234 gallons, the quantities of butter and cheese made being 4,535 lb. and 11,600 lb. respectively. Besides the practice of general dairy-farming work, instruction is imparted in cheese-making, also in the management and breeding of poultry, in the rearing of bees and the preparation of honey for the market, in the killing and dressing of sheep, in the carpenter's and the blacksmith's arts, in the construction of fences, and in various mechanical trades.

Besides the experimental farm attached to the Hawkesbury Agricultural College and the plantation trial stations at Pera and other artesian depôts already referred to, the Department has under its direction experimental farms at Bomen and Wollongbar, in the Murrumbidgee River and Richmond River Districts. The Murrumbidgee, or Bomen, Experimental Farm has recently been established near the southern town of Wagga Wagga, and notwithstanding its youth, operations have been pushed well forward. The total area is 2,460 acres, of which 1,200 acres are in cultivation, 1,000 acres being devoted to growing cereals, of which 500 acres are for seed wheat, the remainder being utilised for oaten hay and malting barley; 85 acres to fruit trees and grape vines; and 80 acres to forage plants, such as maize, sorghum, millet, barley, rye, oats, cow pea, roots, grasses, etc.; while 8 acres are under olive trees; the remaining portion being taken up by irrigation plots, nursery, and experimental plots. The numbers of varieties under experiment are as follow:—Fruit, 2,000; wheat, 340; crossbred wheats, 400; and numerous varieties of oats, barley, sorghum, maize, peas, onions, millet, turnips, sugar beets, potatoes, pumpkins, melons, and fodder crops of every description. Quarters for twenty-five students have been erected, as well as cottages for the manager and workmen; also barns, a hay-shed, and stables. There is no natural water supply, but dams of 6,000, 10,000, and 40,000 yards capacity have been excavated, and are used for supplying water to the irrigation plots. Some thousands of farmers visited this farm during 1896. A specialty is made of growing seed wheats and fruits for drying. During the past season applications were received for upwards of 50,000 bushels of seed wheats, being ten times the quantity available. The price quoted was 7s. 6d. per bushel. Preparations are being made for dairying and pig-raising on a large scale, and also for carrying out feeding trials with cattle, sheep, etc.

At the experimental farm at Wollongbar, on the road leading from Lismore to Ballina, a series of experiments are conducted for the purpose of determining the most suitable fodder-plants for culture in this region; and many varieties of sugar-cane, some of which have been procured from Jamaica, as well as of different semi-tropical and tropical plants and fruits, have been planted in order to test their value, and their suitability to soil and climate. It is probable that a dairy school will also be established at this farm very shortly.

PASTORAL INDUSTRY

THE rapid settlement of the colony has, in a great measure, been due to the fitness of its soil, vegetation, and climate for the successful rearing of the principal species of stock which supply the wants of civilised men, and so largely contribute to the wealth of nations. For many years it was believed that a considerable part of Australia was quite unsuitable for stock, and this opinion was fostered by the accounts of the earlier explorers, who reported that the interior of the continent was a vast desert. These apprehensions, however, were soon dispelled, and the apparent difficulties offered to the successful rearing of stock disappeared before the energy of the colonists. One thing particularly favoured the settlers: though the number of native animals was very considerable, comprising chiefly marsupials of little commercial utility, there happily existed no large species of carnivora which could seriously interfere with the increase in the flocks.

The beginnings of pastoral enterprise in the colony were very humble. The whole stock of the community which accompanied Captain Phillip comprised only 1 bull, 4 cows, 1 calf, 1 stallion, 3 mares, 3 foals, 29 sheep, 12 pigs, and a few goats; and although the flocks and herds of Australasia have not sprung from these animals alone, it will be seen on how small a scale the business of stock-raising was first attempted. No systematic record of the arrival of live stock seems to have been kept in the early days of settlement; but it appears that in the period between Governor Phillip's landing and the year 1800 there were some slight importations, chiefly of sheep from India. It is stated that at the close of the year 1792 the live stock of the colony consisted of 23 horned cattle (old and young), 11 horses, 105 sheep (which were then quoted at £10 10s. each), and 43 hogs. By 1796 the numbers had largely increased, the colony then possessing 57 horses, 101 cows and cow-calves, 74 bulls and bull-calves, 52 oxen, 1,531 sheep, 1,427 goats, and 1,869 hogs; a cow being worth £80, a horse, £90; a sheep of the Cape breed, £7 10s.; and a breeding sow, £5. In 1800 there were 203 horses, 1,044 cattle, 6,124 sheep, 2,182 goats, and 4,017 hogs; while three years later the number of sheep was set down at 10,157. In 1825, thirty-seven years after the establishment of the colony, there were 6,142 horses, 134 519 cattle, 237,622 sheep, and 39,006 pigs;

and in 1842, these numbers had increased to 56,585 horses, 897,219 cattle, 4,804,946 sheep, and 46,086 pigs. As soon as the produce of stock began to exceed the demand for food, the increase became very rapid, and at the end of the year 1850 the stock of the colony numbered 13,059,324 sheep, 1,738,965 cattle, 132,437 horses, and 61,631 pigs.

The severance, in 1851, of Victoria, then the fairest province of the mother colony, involved a loss of 6,589,923 sheep, 390,923 cattle, 20,086 horses, and 7,372 pigs; so that at the close of 1851 the flocks and herds of New South Wales were reduced to 7,396,895 sheep, 1,375,257 cattle, 116,397 horses, and 65,510 pigs. After the separation of Queensland, at the close of 1859, the numbers of each kind of live stock within the existing boundaries of the colony were 6,119,163 sheep, 2,408,586 cattle, 251,497 horses, and 180,662 pigs. In the following year these figures showed a considerable decline, both on account of the effects of the season, and of the large demand which arose for stock for the stations of the new colony; and in 1861 there were in New South Wales 5,615,054 sheep, 2,271,923 cattle, 233,220 horses, and 146,091 pigs. From the numbers just given, the sheep had, at the end of 1896, increased to 48,318,790, the cattle to 2,226,163, the horses to 510,636, and the swine to 214,581; while in some of the intervening years the numbers have been much greater, the sheep in 1891 amounting to no less than 61,831,416.

SHEEP.

The suitability of the land discovered in New South Wales for pastoral pursuits was undoubtedly the means of leading the infant colony to take its first step on the path of commercial progress; and it is not a little surprising at this distance of time to note how steadily some of the settlers, in the face of the almost insurmountable difficulty of transport which existed a century ago, availed themselves of the opportunities at their disposal. The importation of valuable specimens of sheep from England or the Cape of Good Hope prior to the introduction of steam was at all times attended with great risk, and it frequently happened that many of these costly animals died during the tedious voyage; but in spite of all drawbacks, the industry was on the whole successful, and the flocks and herds of the colonists surely, if at first slowly, increased and multiplied.

By the year 1795, Captain Macarthur, one of the first promoters of sheep-breeding in New South Wales, had accumulated a flock of 1,000, which were held in great estimation, and gradually increased in value, until, as recorded by an entry in his journal ten years later, the market price of a fat wether had risen to £5. Not satisfied with the natural increase of his flocks, Macarthur sought to improve the quality of his fleeces, by which means he could see opening before him the promise of great wealth, and the prospect of establishing important commercial relations with Great Britain. With these ends in view, he procured from the Cape of Good Hope, at great cost and trouble, a number of superior rams and ewes. A happy circumstance occurred which favoured his enterprise; for he had the good fortune to secure possession of three rams and five ewes of very fine Spanish breed, which had been presented by the King of Spain to the Dutch Government. These animals, out of a total of twenty-nine purchased at the Cape, arrived in Sydney in 1797, and were disposed of to various breeders. With the exception of Macarthur, however, those who had secured sheep of the superior breed made no attempt to follow up the advantage, being probably amply satisfied with the larger gains derived from the sale of an increased number of animals. Macarthur, on the other hand, thought little of present profits, and still less of breeding entirely for human consumption. He attentively watched the results of crossing his imported rams with the old stock, and by systematically selecting the finer ewes which were the offspring, for further mingling with the sires, he gradually improved the strain, and in a few years obtained fleeces of very fine texture which met with the ready appreciation of English manufacturers. It has been asserted that Macarthur was not the first to introduce merino sheep into Australia; but whether this be so or not, there is no doubt that to him is due the credit of having been the first to prove that the production of fine wool could be made a profitable industry in this colony.

Prior to the present century the production of the finest wool had been confined chiefly to Spain, and woollen manufactures were necessarily carried on in England upon a somewhat limited scale, which was not likely to improve in face of certain restrictions the operatives endeavoured to place upon their employers. These men, in support of their contention that the woollen trade could not be expanded, on account of the limited supply of the raw material, argued that fine wool was obtainable only in Spain; and it was at this favourable period that Macarthur arrived in England with specimens of the wool obtained from his finest sheep, conclusively proving the capabilities of Australia as a wool-producing country. In this way he opened up with English manufacturers a small trade, which, as Australasian wool rose in public estimation, gradually increased until it reached its present enormous dimensions. During his visit to England, Macarthur purchased an additional stock of ten rams and ewes of the noted Spanish breed, nearly equal in quality to those which in 1797 he had procured from the Cape of Good Hope. That these animals were the finest obtainable in Europe may be gathered from the fact that they had formed portion of a present from the King of Spain to George III. Thus did Macarthur, after his return to New South Wales, patiently continue for many years the process of selection, with such success that in 1858, when his flock was finally dispersed, it was estimated that his superior ewes numbered fully 1,000. Victoria secured a considerable portion of Macarthur's flock, and the process of breeding proceeded simultaneously in that and other adjacent colonies.

Although the increase in the numbers of the finer sheep was satisfactory, yet the importation of superior animals was not discontinued, and the stock of the colonies was augmented in 1823 and 1825 by the further introduction of Spanish sheep. Sheep-breeding was about this period commenced in the Mudgee district, and the climate of that region has produced a still more favourable effect upon the quality of the fleeces than any other part of the colony, and it is thence that the finest merinos are now procured. As might have been anticipated, the climate of Australia has in some respects changed the character of the Spanish fleece. The wool has become softer and more elastic, and while having diminished in density it has increased in length, so that the weight of the fleece has only slightly altered. The quality of the wool has thus on the whole improved under the beneficial influence of the climate, and if no further enhancement in its value can be reasonably hoped for, there is at least every reason to believe that Australasian wool will maintain its present high standard of excellence.

The following table, showing the number at the close of each year since the separation of Queensland, illustrates the progress of sheep breeding :—

Year.	Sheep.	Year.	Sheep.	Year.	Sheep.
	No.		No.		No.
1860	6,119,163	1873	18,990,595	1886	39,169,304
1861	5,615,054	1874	22,797,416	1887	46,965,152
1862	6,145,651	1875	25,353,924	1888	46,503,469
1863	7,790,969	1876	25,269,755	1889	50,106,768
1864	8,271,520	1877	21,521,662	1890	55,986,431
1865	8,132,511	1878	25,479,484	1891	61,831,416
1866	11,562,155	1879	30,062,910	1892	58,080,114
1867	13,909,574	1880	35,398,121	1893	56,980,688
1868	15,080,625	1881	36,591,946	1894	56,977,270
1869	14,989,923	1882	36,114,814	1895	47,617,687
1870	16,308,585	1883	37,915,510	1896	48,318,790
1871	16,278,697	1884	31,660,321		
1872	17,566,048	1885	37,820,906		

The ratio of annual increase for the whole period is 5·91 per cent. Divided into four periods the ratios are—

1860–70 annual increase 10·3 per cent.
1870–80 ,, ,, 8·1 ,,
1880–90 ,, ,, 4·7 ,,
1890–96 ,, decrease 2·4 ,,

The operation of the natural law regulating the increase of species, viz., that the ratio of increase is inversely as the increase in the number of individuals, is observable in these figures, and the tendency of the rate of increase to decline as the numbers advance is clear enough.

Considering the unimproved condition of the pasturage over a great portion of the colony, it was apparent in 1891 that the colony was overstocked, and graziers restricted the natural increase of their flocks by not putting to the rams a large number of ewes, especially those that were old or inferior in quality. Numbers of sheep were, moreover, boiled down for tallow and killed for export in a frozen state, so that not only was the increase of flocks arrested, but the year 1894 showed a falling-off of nearly five million sheep as compared with 1891, while in 1895 there was a further decline of nearly nine and a half millions, of which the drought was responsible for five millions. In 1896, despite the loss of nearly a million and a half sheep through the effects of the season, there was an increase in the flocks of over 700,000. During the present year, 1897, the drought has caused a heavy mortality, which is estimated by the Stock Department at over eight million sheep and lambs.

The number of persons owning sheep at the end of 1896 was 13,653. The following is an approximate classification of the holdings of these persons :—

Number of Sheep-owners.	Ranging—		Number of Sheep owned.
	From	To	
5,897	1	500	927,720
2,287	501	1,000	1,502,714
2,026	1,001	2,000	2,585,054
1,638	2,001	5,000	4,464,654
713	5,001	10,000	4,339,026
401	10,001	20,000	5,803,084
475	20,001	50,000	12,828,633
149	50,001	100,000	8,789,185
67	100,001	and over.	7,078,720
Total, 13,653	....	....	48,318,790

The following table shows the loss which may be attributed to the season, being the number which the actual increase in each year fell short of what might reasonably have been expected in a fair season. Out of the twenty-three years over which the information extends, nine years only showed no loss, or loss so slight as to be inappreciable. On the other hand, nine seasons of opposite character were experienced, in which not only was there no increase, but an actual decrease on the number of the previous year; in five years there was a relative increase over the previous year's totals, but an actual loss of sheep from drought. Turning to the table, it will be seen that in 1884 the loss of sheep reached the enormous total of 8,138,000, a number larger even than the total of the flocks in some of the colonies of the group. The loss in the year 1892 was 4,190,120, due chiefly to drought in the extreme western regions. In 1895 there was again a loss of no fewer than 4,913,300 by drought, which was general throughout the colony; while in the following year, 1,457,800 sheep were lost through the season.

Year.	Expected increase, allowing for all causes of natural decrease.	Actual increase or decrease.	Loss through Seasons.	Year.	Expected increase, allowing for all causes of natural decrease.	Actual increase or decrease.	Loss through Seasons.
	No.	No.	No.		No.	No.	No.
1874	3,807,000	3,807,000	†	1886	3,409,000	1,348,000	2,061,000
1875	2,556,000	2,556,000	†	1887	7,796,000	7,796,000	†
1876	1,915,000	* 84,000	1,999,000	1888	2,435,000	*462,000	2,897,000
1877	1,802,000	*3,748,000	5,550,000	1889	5,339,000	3,603,000	1,736,000
1878	3,958,000	3,958,000	†	1890	5,880,000	5,880,000	†
1879	4,583,000	4,583,000	†	1891	5,845,000	5,845,000	†
1880	5,335,000	5,335,000	†	1892	439,120	*3,751,000	4,190,120
1881	2,947,000	1,194,000	1,753,000	1893	‡488,926	*1,099,426	610,500
1882	1,797,000	* 477,000	2,274,000	1894	672,282	*3,418	675,700
1883	3,193,000	1,801,000	1,392,000	1895	‡4,446,260	*9,359,560	4,913,300
1884	1,883,000	*6,255,000	8,138,000	1896	2,158,900	701,100	1,457,800
1885	6,160,000	6,160,000	†				

* Decrease during the year. † No loss, or, if any, very slight. ‡ Expected decrease.

After allowing for the causes which naturally impede the increase in the flocks of the colony, the demands of the slaughter-yard, the requirements of the neighbouring colonies, and the deaths occurring from other causes than drought, it will be found that the rate of annual increase may be as high as 20 per cent., so that it is possible for the flocks of the colony to increase two-fold in about four years. Actual experience shows that such rate of increase has only been approached once since the year 1861. During the period of five years from 1861 to 1866 there was a two-fold increase; the flocks of the colony were again doubled in the eight years from 1866 to 1874, and in the thirteen years from 1874 to 1887. How many sheep could be sustained by the colony under a system of artificial feeding and watering may hereafter become a question of national interest; but it is abundantly plain that even with a continuation of fair seasons it would be impossible, under the present mode of despasturing stock, for the colony to support for any number of years an increase of sheep similar to the record of 1891, as in nine years' time the flocks would increase from 48,318,790 to 118,000,000—a total larger than that now found in all Australasia.

The export and import of sheep during the ten years, 1887–96, is shown in the following table. The figures are for several years somewhat in excess of the truth, as sheep are often crossed from one colony to another for the convenience of station-holders, or in search of grass, and not for purposes of trade :—

Year.	Exported.	Imported.	Year.	Exported.	Imported.
	No.	No.		No.	No.
1887	1,218,504	864,313	1892	1,583,666	520,660
1888	2,327,406	254,018	1893	933,012	1,017,252
1889	1,217,325	832,565	1894	905,783	530,664
1890	2,987,902	598,077	1895	999,773	420,374
1891	1,615,964	663,044	1896	744,578	1,010,176

The local demand for sheep for consumption was until recent years so small compared with the supply as not to appreciably affect the increase of the flocks of the colony. This, however, is not now the case, and the annual demand for slaughtering purposes is about 6 per cent. of the number of sheep depastured, and is, therefore, equal to three-sevenths of the annual cast.

The stock-carrying capabilities of the colony are very difficult to estimate, as by far the greater portion of the country is yet in its natural state. Improvements, such as a better system of water conservation and irrigation, an intelligent extension of the salt-bush, cotton-bush, and other drought-resisting shrubs and natural grasses, and the cultivation of artificial fodder, are gradually being effected, and will indefinitely extend the capacity of the colony for supporting stock of all descriptions.

The following table gives the number of sheep in the Australasian colonies at the end of 1896, and the proportion owned by each colony :—

Colony.	Sheep.	Proportion of Sheep owned in each Colony.
	No.	per cent.
New South Wales	48,318,790	43·72
Victoria	13,180,943	11·93
Queensland	19,593,696	17·73
South Australia	6,402,593	5·79
Western Australia	2,248,976	2·03
Tasmania	1,640,567	1·48
New Zealand	19,138,493	17·32
Australasia	110,524,058	100·00

It will be seen that New South Wales stands first of all the colonies as a sheep-breeding country. But whilst Victoria has nearly reached the limit of its natural capabilities in this particular direction, a considerable proportion of its area being now devoted to agriculture, New South Wales has not yet approached that limit. In Queensland, as in South Australia, sheep-breeding does not absorb the attention of pastoralists to the same extent that it does in

New South Wales. The former colony is more adapted to the breeding of cattle; whilst in the southern and more settled districts of South Australia greater attention is paid to the cultivation of cereals, its northern territory, like that of Queensland, being more adapted by nature to the breeding of cattle and horses. Western Australia is at present in the early stage of its colonisation; much of its area is still unknown, and it is therefore impossible to estimate its future as a sheep-breeding country. It may, however, be surmised that the southern portion of its immense territory will, in time to come, be stocked with sheep, whilst the northern portion will probably be found more suitable for the breeding of cattle and horses, on account of its resemblance to portions of Queensland and the northern territory of South Australia situated under the same latitude. It was thought at one time that cattle-breeding would occupy a position in New South Wales equal to that of sheep-breeding, but experience has shown that the general climatic conditions are more favourable to sheep than to cattle, and the colony is probably destined to remain as it now is—the great sheep-breeding centre of Australia.

The different degrees of success attending sheep farming in various parts of the country have long since directed attention to the fact that each part of Australia is not equally fitted for the production of fine wools. New South Wales may be divided climatically into four zones:—(1) The coast country extending from the seaboard to the main range, the breadth of which varies from 20 to 100 miles; (2) the table-land districts on the summit of the range; (3) the upper part of the western slopes; and (4) the interior, or "salt-bush country."

The climate of the eastern seaboard for a considerable distance inland is too moist, and a large portion of it too poor, for the adequate sustenance of merinos, but it is probable that the coarser breeds of sheep would not deteriorate through the limited food supply and the rugged nature of the country. On the Hunter and other northern rivers, and in the southern coast districts, where the soil is very rich, dairy-farming and agriculture are the leading, and, no doubt, the most profitable industries. Sheep-breeding is carried on to some extent in the regions towards the summit of the coast range; but, as in the case of the country near the sea, the soil as a rule is unfavourable to sheep. On crossing the coast range, however, the contrast between the aspect of the country just entered and that left behind is very striking. Here the grazing and wool-growing capabilities are at once apparent, and farther to the westward a still greater improvement is visible.

In the abundant pastures of the Riverine districts the wool is less fine than in the country immediately west of the table-lands, but the fleeces are generally sound and heavy. Farther in the salt-bush country the wool suffers both in the weight of the fleece and in its quality; but the country is fattening, and the stock are generally more healthy than those nearer the sea. In the country on the further side of the Darling the great summer heat is adverse to the production of heavy fleeces; but even here a fair class of wool is produced, as the stock-owners are constantly introducing fresh blood, and so counteracting the tendency towards the degeneration of the breed of sheep which otherwise might ensue.

The importation of stud sheep from foreign countries, notably France, Germany, and America, which was continued for many years after the superfine quality of Australian wool had been established in the markets of the world, practically ceased even before importation was legally prohibited; for it had become apparent that the fleece, instead of showing signs of deterioration under the influence of the climate, had, on the whole, a tendency to improve. The introduction of sheep and cattle into New South Wales was forbidden for many years, owing entirely to the fear of the stock-owners that their herds might be contaminated by scab and other diseases prevalent in European flocks; but these restrictions were removed at the beginning of the year 1888, and there is now an import of pure-bred sheep from the United Kingdom, the United States, France, and Germany. So far, the breed imported has been chiefly the merino; but Lincoln, South Down, Shropshire, and other well-known breeds have been introduced. In the course of the year 1896, the stud sheep imported from the other Australasian colonies numbered 9,724; while 2 stud rams and 10 ewes were introduced from England, 16 rams and three ewes from Germany, 1 ram from France, and 33 rams from America. The breeds of the sheep brought from abroad were the Shropshire, Merino, and Vermont Merino.

It is now generally admitted that, as far as the fleece is concerned, the Australian merino has little to gain by any further admixture of European or American blood, but it is equally admitted that there is room for improvement in the physique of the animal. To produce a larger carcase, without interfering with the quality of the fleece, many experiments have been made, but without much success, and it has been found that the crossing of noted breeds of English rams with Australian ewes has invariably resulted, after a generation or two, in a deterioration of the merino. The breeding of sheep for consumption, and for the sake of the wool, has, therefore, developed naturally into two distinct fields of industry. It may here be mentioned that the carcase of the ordinary Australian merino, when dressed, averages about 46½ lb., whereas dressed carcases of the Lincoln or Leicester breed would average 57 to 60 lb. The food qualities of the merino are not appreciated in the London market, and its lean flanks and long fleshless leg bones make its appearance objectionable to the butcher, with the result that the improved prospects of export have induced growers to introduce large sheep for cross-breeding, in order to secure a heavier and more presentable carcase. It remains yet to be seen, however, how far the pasture and climate of the country hitherto devoted to the merino are suitable to the more gross-feeding cross-breed.

The various breeds of sheep in the colony are the Merino, Lincoln, Leicester, Downs, and Romney Marsh, and crosses of the long-woolled breeds, principally with the merino. At the close of 1896 the respective numbers of merino and long-woolled sheep and cross-breeds stood thus:—

Merino	44,260,503
Long-woolled sheep	1,279,180
Cross-breeds	2,779,107
Total	48,318,790

During the last two years the English and cross-bred sheep have increased by one million, while the merinos have decreased in number from 54,070,781 to 44,260,503. Following is a classification of the sheep in the colony at the end of 1896:—

Merino—			
Combing—			
Pure and stud—Superfine	1,584,471		
Ordinary	5,057,351		
		6,641,822	
Pure and stud—Medium	2,476,341		
Ordinary	12,699,926		
		15,176,267	
Pure and stud—Strong	2,700,078		
Ordinary	8,564,929		
		11,265,007	
Total Combing			33,083,096
Clothing—			
Pure and stud—Superfine	461,068		
Ordinary	926,414		
		1,387,482	
Pure and stud—Medium	725,707		
Ordinary	5,493,268		
		6,218,975	
Pure and stud—Strong	967,894		
Ordinary	2,603,056		
		3,570,950	
Total Clothing			11,177,407
Total Merino			44,260,503
Long-woolled—			
Pure and stud—Lincoln	235,439		
Ordinary	425,342		
		660,781	
Pure and stud—Leicester	239,078		
Ordinary	336,510		
		575,588	
Pure and stud—Southdowns	4,816		
Ordinary	8,994		
		13,810	
Pure and stud—Shropshire Downs	6,870		
Ordinary	11,387		
		18,257	
Pure and stud—Hampshire Downs	....	40	
Pure and stud—Romney Marsh	8,211		
Ordinary	2,487		
		10,698	
Pure and stud—Cotswold	....	4	
Pure and stud—Cheviot	....	1	
Pure and stud—Dorset Horn	....	1	
Total Long-woolled			1,279,180
Crosses—			
Long-woolled with Merino principally			2,779,107
Grand Total			48,318,790

The sexes and classes of sheep at the end of 1896 were estimated as follows :—

Rams	659,252
Ewes	23,033,676
Wethers	15,882,894
Lambs	8,742,968
Total	48,318,790

The climate of New South Wales admits of stock of all kinds being left in the open air, and there is no necessity for housing them during the winter months. The sheep are either kept in paddocks or under the care of shepherds, though on some stations they are both shepherded and paddocked. At the end of 1896 there were :—

Paddocked	47,607,441
Shepherded	258,382
Paddocked and shepherded	452,967
Total	48,318,790

The advantages of the paddocking system are now universally recognized ; the country will carry one-third more sheep ; the wool will be longer and sounder, and the fleece as a whole one-third better; the feed will be cleaner and less liable to grass-seed ; the sheep will increase in size ; they will live longer and continue longer profitable; they will be freer from foot-rot and other diseases ; the expense of working the station will be less than a quarter of what it would be if the sheep were shepherded; and finally, the owner will be able to devote the principal part of his time to improving his sheep, instead of spending it in attempting to manage a number of shepherds and hut-keepers.

It has also been found that the percentage of lambing is higher among paddocked than shepherded sheep. The percentage of lambs obtained from the ewes in Australia is, however, far lower than that experienced in the United Kingdom, where the ratio on account of twin lambs has been known to exceed 160 per cent., and over a series of years, amongst the Suffolk flocks, considerably exceed 130 per cent. This result is doubtless due to the much greater care and attention bestowed on English sheep at the lambing season.

During the year 1896, the lambs marked in New South Wales numbered 10,609,209. In his annual report, the Chief Inspector of Stock states that the number of ewes put to the ram was 16,658,958, which would give an average lambing of 63·68 per cent.

The year 1895 closed with a total of 47,617,687 sheep ; the increase by lambing during the season was 10,609,209 ; and 1,010,176 sheep were imported. Excluding sheep killed on stations and farms, 1,827,999 were slaughtered for food for local consumption during the year; 1,159,945 were killed for food on stations; 940,676 were taken by the meat-preserving works; 1,372,373 were frozen for export; while 523,279 were boiled down for tallow at boiling-down works, and 133,819 were similarly treated on stations. In addition to the above, 119,329 lambs were killed for local food consumption, bringing the total number slaughtered during the year to 6,077,420. During the year 744,578 live sheep were exported; 257,590 were killed by dogs; and 3,838,694 were lost or may be attributed to ordinary mortality. The decrease from all causes amounted, therefore, to 10,918,282, leaving the number of sheep on 31st December, 1896, at 48,318,790, or an increase of 701,103 on the number depastured at the end of the previous year. The mortality set down above, viz., 3,838,694, is 8·06 per cent. of the total flocks depastured. The normal death-rate of sheep is 5 per cent.

WOOL.

The quantity of wool, the produce of New South Wales, exported during 1870 and subsequent periods ending with 1896, is given in the subjoined table. A large proportion of the clip is exported to Europe, *via* the adjacent colonies, as already alluded to in the chapter on Commerce. During 1870 nearly 46 per cent. of New South Wales wool was shipped from ports outside the colony, but in 1896 the proportion had declined to about 28 per cent. The weights given are on the assumption that all the wool was shipped in grease :—

Year.	N. S. Wales ports.	Victorian ports.	S. Australian ports.	Queensland ports.	Total.
	lb.	lb.	lb.	lb.	lb.
1870	34,608,600	20,411,889	8,787,126	....	63,807,615
1875	48,635,622	55,305,262	9,184,725	150,000	113,275,609
1880	99,011,710	63,367,669	11,298,297	404,598	174,082,274
1885	132,539,441	45,311,695	8,215,265	387,986	186,454,387
1886	122,901,992	48,597,092	22,923,412	297.037	194,719,533
1887	159,704,606	58,687,888	21,718,339	112,762	240,223,595
1888	188,990,931	59,155,698	8,121,721	28,839	256,297,189
1889	183,881,857	74,857,400	25,372,201	126,804	284,238,262
1890	168,836,103	70,808,013	17,475,612	55,104	257,174,832
1891	255,204,601	81,689,892	19,731,728	470,733	357,096,954
1892	241,963,380	78,382,868	15,501,210	771,204	336,618,662
1893	247,734,888	76,883,635	18,396,368	979,400	343,994,291
1894	264,872,092	73,427,131	19,121,856	715,917	358,136,996
1895	244,437,310	63,661,684	14,540,735	625,916	323,265,645
1896	211,802,106	63,794,830	20,192,922	464,590	296,254,448

The proportion of the total clip reaching New South Wales ports compared with that which was despatched by way of Melbourne, Adelaide, and Brisbane, was :—

Year.	Shipped from New South Wales ports.	Shipped from other Australian ports.	Year.	Shipped from New South Wales ports.	Shipped from other Australian ports.
	per cent.	per cent.		per cent.	per cent.
1870	54·2	45·8	1890	65·6	34·4
1875	42·9	57·1	1891	71·5	28·5
1880	56·9	43·1	1892	71·9	28·1
1885	71·1	28·9	1893	72·0	28·0
1886	63·1	36·9	1894	73·9	26·1
1887	66·5	33·5	1895	75·6	24·4
1888	73·7	26·3	1896	71·5	28·5
1889	64·7	35·3			

As the season for exporting wool does not wholly fall within the calendar year, the quantity of wool stated in the table on page 384 for any year consists partly of that season's clip and partly of the previous one. The following table shows the total number of sheep shorn during the year, distinguishing those whose fleece was washed previous to shearing. It will be observed that most of the sheep are shorn in grease. This was not always the case; at one time nearly half the sheep were washed before being shorn. Several circumstances have led to the change, the principal being that the price obtained for washed wool in excess of greasy is not commensurate with the cost of washing :—

Year.	Sheep.				Lambs.	
	In grease.	H.-W. and Spout.	Creek-washed.	Scoured.	In grease.	Washed.
	No.	No.	No.	No.	No.	No.
1880	25,298,211	1,015,556	6,164,859	2,660,141	*	*
1885	28,324,595	38,000	642,424	267,250	4,113,383	42,584
1890	40,935,736	....	1,271,712	580,794	9,285,871	33,521
1891	45,619,967	....	426,201	1,093,886	10,531,106	31,542
1892	46,947,809	....	154,503	1,262,163	7,105,210	132,503
1893	45,348,757	....	81,169	1,007,549	7,482,936	169,698
1894	42,632,425	100,000	88,686	3,001,835	7,948,101	463,950
1895	38,925,708	....	23,006	1,857,663	4,731,387	147,893
1896	37,409,296	....	2,793	2,193,011	5,857,382	535,101

* Not recorded.

The average weight of fleece obtained during the ten years ended 1896 from sheep shorn in grease was 5 lb. 12 oz., while creek-washed yielded 3 lb. 2 oz., and scoured 3 lb. 3 oz. During the same period lambs' fleeces averaged 1 lb. 14 oz. in grease, and 1 lb. 6 oz. when washed. Although the number of sheep shorn last season was smaller than in the preceding year, the average weight of fleece was higher. This was owing to the season throughout the colony being fairly good. The great improvement in the weight of the fleece during the last twenty years may be seen from the table given below; and in connection with this matter, it may be pointed out that sheep-owners who until recently were unable to secure good blood have been enabled, in consequence of the low prices ruling at the annual sales during the last few years, to improve their flocks by the acquisition of superior stud rams:—

Year.	Estimated Average Weight of Fleece from Sheep shorn—		Year.	Estimated Average Weight of Fleece from Sheep shorn—	
	In the grease.	Scoured.		In the grease.	Scoured.
	lb. oz.	lb. oz.		lb. oz.	lb. oz.
1877	4 0	....	1887	5 9	2 14
1878	5 0	2 4⅗	1888	5 6½	2 9½
1879	5 1	2 10	1889	5 13½	2 14
1880	5 7	2 9½	1890	5 11¾	3 4½
1881	5 0	2 8⅕	1891	5 9	3 7
1882	5 0	2 9½	1892	5 6	3 2
1883	5 2	2 12	1893	5 15	3 5
1884	5 0	2 14	1894	6 1½	3 5½
1885	5 7½	3 0	1895	5 11½	3 5
1886	5 5⅓	2 14	1896	6 4	3 4¼

Wool is put up at the stations in packs of various sizes from 4 ft. 6 in. by 2 ft. 2 in. to 5 ft. 3 in., weighing from 10 lb. to 12 lb. On forty-two holdings the bales are "dumped" in a hydraulic press before leaving, and thus reduced to less than half their original length. A bale of greasy wool averages about 390 lb. in weight, and a bale of washed wool about 280 lb.

VALUE OF THE WOOL CLIP.

The wool clip of Australasia is its most important item of production, and it may be said that the prosperity of the colonies in a large measure depends upon the state of the wool market. The following table summarises the state of the export trade in New South Wales wool during the period 1860–96, and illustrates the growth of that important industry during thirty-seven years, whilst at the same time the fluctuations in the value of the clip may be easily followed. The weights given represent the actual exports, washed and greasy wool being taken together :—

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	℔.	£		℔.	£
1860	14,962,362	1,454,289	1879	123,710,450	6,491,198
1861	18,171,209	1,768,978	1880	154,871,832	8,040,625
1862	20,988,393	1,801,186	1881	139,601,506	7,149,787
1863	15,842,520	1,316,520	1882	146,221,182	7,433,091
1864	25,827,917	2,294,615	1883	188,161,710	9,598,761
1865	29,858,791	2,283,560	1884	173,986,303	8,953,100
1866	36,980,685	2,830,348	1885	168,151,659	7,246,642
1867	27,327,452	2,125,737	1886	173,985,640	7,028,596
1868	27,067,256	1,960,360	1887	216,450,342	8,911,155
1869	51,269,672	3,162,522	1888	235,848,944	9,089,776
1870	47,440,610	2,741,141	1889	261,853,484	10,620,636
1871	65,611,953	4,748,160	1890	236,322,828	8,991,396
1872	50,233,453	3,342,900	1891	331,887,720	11,036,018
1873	62,998,692	3,936,408	1892	312,225,293	10,211,456
1874	75,156,924	5,010,125	1893	318,782,858	9,675,061
1875	87,534,280	5,651,643	1894	331,774,424	9,011,790
1876	100,736,330	5,565,173	1895	297,448,104	8,958,690
1877	102,150,246	5,256,038	1896	272,033,262	8,776,529
1878	111,833,017	5,723,316			

An examination of the preceding figures at once shows how greatly the fluctuations in the value of the staple article of export affect the national prosperity. For instance, the exports for the years 1884 and 1886, which may be taken as practically equal in quantity, represented a value of £8,953,100 in the former year, and of only £7,028,600 in the latter year. Again, comparing 1883 with 1894, there was a difference in quantity in favour of the latter year of 143,612,714 ℔., and had the prices of 1883 been obtained the value of the 1894 clip would have exceeded that of the former year by £7,272,400, whereas there was an actual decrease to the amount of £586,971. In 1896, however, there was a rise in price, and the value of the exports in that year was £8,776,529 instead of £7,389,837, which the quantity shipped would have represented at the average price of 1894. As explained in a former issue of this work, the general strike of 1890 had a very marked effect on the wool trade of the succeeding year. In some cases the sheep remained unshorn until long after the usual time, and in many others the wool did not leave the stations until the close of the year, so that a considerable portion of the clip of 1890 was of necessity held over for export in the succeeding year.

The preceding table also shows that, although during the period under examination the value of wool has greatly fluctuated from one year to another, the tendency to a settled diminution of price is unfortunately too clearly discernible. At one time almost all the wool used to be shipped on grower's account and sold in London, but of late years the proportion sold in the local markets has very largely increased, and European purchasers are realising the advantages of buying on the spot. The increasing importance of the Sydney wool sales will be manifest from the following figures :—

Season.	Total deep-sea exports from Sydney and Newcastle.	Sydney Wool Sales.		
		Offered.	Sold.	Proportion of deep-sea exports sold in Sydney.
	bales.	bales.	bales.	per cent.
1887-88	396,772	227,466	162,511	40·96
1888-89	450,095	268,264	209,252	46·49
1889-90	465,835	268,790	234,419	50·32
1890-91	566,680	333,876	251,314	44·35
1891-92	630,115	361,880	278,304	44·17
1892-93	637,758	398,010	362,365	56·82
1893-94	719,620	452,571	401,830	55·84
1894-95	755,769	488,509	425,135	56·25
1895-96	683,001	441,437	415,538	60·84
1896-97	690,034	437,284	401,138	58·13

Of the 401,000 bales of wool sold in Sydney during the last season, it may be said that approximately 272,000 bales were purchased for the Continent of Europe, 75,000 bales for the English trade and for London on speculative account, 15,000 bales for America, 1,400 bales for Japan and India, and 37,600 bales by local scourers. The average prices per bale realised in Sydney during the last three years were £8 10s. in 1894-5, £10 2s. 6d. in 1895-6, and £10 5s. in 1896-7; while in the London market an average of £11 10s. was obtained in 1894, of £11 in 1895, and of £12 in 1896. The higher prices averaged in London are partly accounted for by the quantity of wool, such as locks, pieces, etc., sold at low rates in Sydney, and scoured prior to shipment.

The prices realised for the different descriptions of wool at the Sydney wool sales during the last two seasons are given below :—

Description.	Superior.		Good.		Medium.		Inferior.	
	1895-6.	1896-7.	1895-6.	1896-7.	1895-6.	1896-7.	1895-6.	1896-7.
Greasy—	d. d.	d. d.	d. d.	d. d.	d. d.	d. d.	d. d.	d. d
Fleece ..	8¼ to 11½	8½ to 11¾	8¼ to 10	7¼ to 8¼	7¼ to 8	6¼ to 7	5¾ to 7	4¾ to 6
Pieces ..	7½ „ 8½	7 „ 8¼	6¼ „ 7¼	6 „ 6¾	4¾ „ 6	5 „ 5¾	4 „ 4½	3½ „ 4¾
Bellies ..	5¾ „ 6¾	5½ „ 6½	4¾ „ 5½	4½ „ 5¼	3¾ „ 4½	3¾ „ 4¼	3 „ 3½	2¾ „ 3½
Lambs ..	9 „ 9½	8 „ 11¼	6¾ „ 8¾	7¼ „ 7¾	5½ „ 6¼	5½ „ 7	4¼ „ 5¼	3¾ „ 5¼
Crossbred..	8¾ „ 10½	8¼ „ 10½	7¾ „ 8½	7¼ „ 8	6¼ „ 7½	6¼ „ 7	5½ „ 6	5 „ 6
Scoured—								
Fleece ..	16¾ „ 18¼	14¾ „ 16½	14¾ „ 10½	13¼ „ 14½	12¾ „ 14½	12 „ 13	10¾ „ 12¼	10¾ „ 11¾
Pieces ..	15 „ 15¾	11¾ „ 13½	12½ „ 14¾	10¼ „ 11½	10 „ 12	9 „ 10½	7¾ „ 9¾	8 „ 8¾
Bellies ..	13¼ „ 14	10¾ „ 13¼	11 „ 13	9¾ „ 10½	9¾ „ 10¾	8¾ „ 9½	7 „ 9¼	7 „ 8½
Locks ..	9 „ 10¼	8¼ „ 11¼	7¾ „ 8¾	7¼ „ 8	6½ „ 7½	6½ „ 7	5¼ „ 6¼	5¼ „ 6¼
Washed—								
Fleece ..	10 „ 11	......	10 „ 11½	9 „ 9¾	9 „ 9¾	....	7¾ „ 8¾	....

In order to illustrate the fluctuations in the value of this staple during the last sixteen years, the following table will give a fairly correct idea of the average value realised for greasy wool in the London market. The values given were those ruling at the five principal sales of each year until 1894, and at the six sales in 1894, 1895, and 1896 :—

Sales.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.
	d.	d.	d.	d.	d.	d.	d.	d.
1st Series	10½	10½	10	9½	9	7½	10½	8
2nd „	11	10½	10	9½	8½	6	10	8
3rd „	11¼	10	9	9½	8	8	9	8
4th „	10½	10	9½	10	7	11	8¼	8½
5th „	10½	10	10	9½	7½	10	7½	8¾

Sales.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.
	d.	d.	d.	d.	d.	d.	d.	d.
1st Series	9	10½	9	7¼	8	6⅞	6	8¾
2nd „	9½	10	10	8	8½	6⅝	6½	9¼
3rd „	10	9	9½	7½	7⅞	6¼	6¼	8½
4th „	10½	10	9	7½	8¼	6⅝	7¼	8¼
5th „	11¼	9	8½	8	7	6¼	8½	7¾
6th „	......	......	......	......	......	6	8½	8¼

During the period covered by the foregoing table, Sydney-shipped greasy wool realised from 11¼d. to 6d. The maximum prices were realised during 1881, when the sales opened at 10½d. per ℔. Prices were fairly well maintained until 1883, but they began then to decline rapidly until the lowest market was reached in the second series of 1886, when greasy wool realised as little as 6d. per ℔.; at the end of that year, however, the prices had considerably advanced, greasy wool selling at 10d. These prices have been exceeded only once since, which was at the December sales of 1889, when the price obtained for greasy was 11¼d. Since 1890 the price of greasy wool has ranged from 10½d. at the beginning of that year to 6¼d. at the third and fifth series of 1894. The first sales of 1896 opened at 8¾d., but this price was eclipsed at the next series, when 9¼d. was realised. There was considerable fluctuation in the course of the year, the sales ultimately closing at 8¼d.

Prices in 1895 and 1896 were a satisfactory advance on those of 1894; and as the effects of the drought make themselves felt it is highly probable that wool-growers will be compensated to some extent for their recent losses. Stocks in Europe are light, and with a prospective shortage in the Australasian clip, prices should continue to rise. The only unfavourable factor is the new tariff of the United States, but it may be that trade will be better after the tariff question has been finally settled than during the long period of uncertainty.

There is no cause to view unfavourably the further extension of the production of wool in these colonies. In the ancient seats of wool-growing, production is now stationary, and in some of the areas recently devoted to this industry, many causes, both climatic and otherwise, are likely to offer serious checks to its extension, while population, with the consequent demand for wool, is everywhere increasing. The wool supplies of the world have of late years shown no material increase, and there are no signs of an increase of production in the near future; for any advance in the quantity of wool available from Australia after the passing away of the effects of the recent drought, or from the River Plate, will probably be more than counterbalanced by a restricted production in Great Britain, North America, and the Continent of Europe. The establishment of a market for Australian wool in Japan is now claiming attention, and it is not too much to expect that the shipments to Eastern countries will show a satisfactory increase in the early future.

It is a moot question whether the climate of New South Wales is better adapted to the production of a combing than a clothing wool. Although the former is looked upon with most favour by wool-growers, it is generally recognised that there are very large tracts of country, especially where the salt-bush predominates, on which it is difficult to raise a good combing wool, and where it will probably be found more profitable by wool-growers to give greater attention to the cultivation of the clothing variety.

The breeding of coarse-woolled sheep for the market is increasing, with a view to the extension of the frozen-meat industry of the colony. The stock raised for this purpose are principally of the Leicester and Lincoln breeds, the latter being perhaps the greater favourite as a producer of fat lambs. The English sheep has the advantage of a heavier carcase, and there is no doubt that it is preferred in the home market to the merino, the appearance of which is against its popularity.

The quantity and value of wool, the produce of each of the various colonies of Australasia, exported during the year 1896, will be found hereunder. The weights given are on the assumption that all the wool was shipped in grease :—

Colony.	Quantity.	Value.
	℔.	£
New South Wales	296,560,076	8,810,375
Victoria	68,621,389	2,688,908
Queensland	100,732,119	2,976,984
South Australia	47,811,550	1,200,994
Western Australia	11,461,346	267,506
Tasmania	8,802,583	290,825
New Zealand	143,419,032	4,391,575
Australasia	677,408,095	20,627,167

The figures represent the net exports of the various colonies, and those given for New South Wales are therefore slightly different from the figures given on page 384, which show the exports of domestic produce as per Customs returns.

CATTLE.

Though still a most important industry, cattle-rearing does not now occupy so prominent a place as formerly. The number of horned cattle returned at the end of each year since 1861 is shown in the subjoined table. It will be noticed that there was a great decline in the total from 1875 to 1885, but that the number steadily increased from 1885 to 1895, when, in consequence chiefly of the general drought, it fell to 2,150,057 from 2,465,411 in 1894. In 1896, however, there was an increase of 76,106 over the previous year :—

Year.	Cattle.	Year.	Cattle.	Year.	Cattle.
	No.		No.		No.
1861	2,271,923	1873	2,794,327	1885	1,317,315
1862	2,620,383	1874	2,856,699	1886	1,367,844
1863	2,032,522	1875	3,134,086	1887	1,575,487
1864	1,924,119	1876	3,131,013	1888	1,622,907
1865	1,961,905	1877	2,746,385	1889	1,741,592
1866	1,771,809	1878	2,771,583	1890	2,091,229
1867	1,728,427	1879	2,914,210	1891	2,128,838
1868	1,761,411	1880	2,580,040	1892	2,221,459
1869	1,795,904	1881	2,597,348	1893	2,269,852
1870	2,195,096	1882	1,859,985	1894	2,465,411
1871	2,014,888	1883	1,640,753	1895	2,150,057
1872	2,287,660	1884	1,425,130	1896	2,226,163

If the above figures be compared with the returns of sheep for the same period, it will be found that the change which has taken place in the class of stock has been most remarkable. It is very debatable whether the substitution of sheep for cattle will in the end prove advantageous to the State, though there does not appear to be any doubt that sheep-breeding is at present more profitable to the individual owner. The increase in the number of cattle depastured in the colony during 1896 was 76,106; but compared with 1875 there was a decrease of 907,923. It would seem from these figures that the lowest point in cattle-raising was reached in 1885, the result, no doubt, of continued bad seasons. Since then the improvement has been gradual, and, even if small, it may be taken as evidence of the disposition of the pastoralists in some parts of the colony to revert to cattle-breeding in place of sheep.

An exact statement of the loss of cattle from disease and failure of water and grass can be made for fourteen years. Of these years, six may be considered as having been favourable to stock, and five disastrous, while in the other three years the losses have not been large. The following table shows the number of cattle lost through unpropitious seasons or disease. The cause of most of the losses was failure of grass and water; but in some years, notably 1890, the stockholders suffered greatly by the prevalence of the opposite condition of too much rain, inducing various forms of disease fatal to stock :—

Year.	Expected Increase, allowing for all causes of natural decrease.	Actual Increase or Decrease.	Loss through Seasons.
	No.	No.	No.
1883	114,900	*219,200	334,100
1884	64,100	*215,600	279,700
1885	30,600	*107,800	138,400
1886	66,800	50,500	16,300
1887	207,600	207,600	†
1888	82,600	47,400	35,200
1889	118,700	118,700	†
1890	299,500	167,400	132,100
1891	137,300	137,300	†
1892	100,727	100,727	†
1893	92,493	48,393	44,100
1894	195,559	195,559	†
1895	‡150,113	*315,354	165,241
1896	76,106	76,106	†

* Decrease during the year. † No loss, or, if any, very slight. ‡ Expected decrease.

The principal breeds of cattle now in the colony are the Durham or horthorns, Hereford, Devon, Black-polled, Ayrshire, Alderney, Jersey, nd crosses from these various breeds. At the close of the year 1896 ie numbers of each breed, as far as could be ascertained, were :—

Shorthorns—		
Pure and stud	60,596	
Ordinary	653,966	714,562
Hereford—		
Pure and stud	28,633	
Ordinary	213,049	241,682
Devon—		
Pure and stud	11,783	
Ordinary	64,922	76,705
Black-polled—		
Pure and stud	954	
Ordinary	3,898	4,852
Red-polled—		
Pure and stud	53	
Ordinary	1	54
Ayrshire—		
Pure and stud	4,878	
Ordinary	26,207	31,085
Alderneys—		
Pure and stud	1,449	
Ordinary	4,744	6,193
Holstein—		
Pure and stud	100	
Ordinary	200	300
Jersey—		
Pure and stud	1,875	
Ordinary	6,643	8,518
Crosses (estimated) :—		
Shorthorn and Hereford	304,759	
Shorthorn and Devon	133,788	
Hereford and Devon	59,598	
Shorthorn and Black-polled	14,716	
Ayrshire and Shorthorn	54,946	
Alderney and Shorthorn	116	
Jersey and Shorthorn	83	
Shorthorn and Holstein	300	
Unrecognisable	391,450	959,756
Total		2,043,707

There were, in addition, 182,456 head not classified, which were for he most part in the towns.

There has been a comparatively large increase in the number of milking cattle, as many of the stockowners, principally in the coastal districts, are turning their attention to dairying instead of fattening for market, and it is believed that this change will continue and in time become general throughout the colony, as dairying, when properly carried out, yields very satisfactory returns. The number of milch cows is now 400,183. Further particulars in regard to the dairy industry will be found on page 405.

The breed of cattle throughout the colony is steadily improving—a result due to the introduction of good stud stock, to greater attention and care exercised in selection and breeding, more particularly for dairying purposes; and to culling and keeping in paddocks. In only four out of the sixty-five sheep districts of the colony is it reported that there is actual deterioration in the quality of the cattle, accounted for by inattention to breeding. Cattle are for the most part kept in paddocks. Of the total number in the colony 1,864,953 are paddocked, 227,861 are on open runs, and the remainder, 133,349, are depastured both ways.

During the year 1896, 87 pure-bred cattle were imported, chiefly from the other colonies of the group. Importations from Europe and America were prohibited for many years, owing to the natural dread of the stockowners lest their herds should contract diseases which have devastated the cattle of other countries. The prohibition was removed in 1888, and cattle are now admitted after strict quarantine. The number so admitted in 1896, included in the above figures, was 9, viz., 1 Jersey, 2 Hereford, and 2 Shorthorn bulls, and 2 Jersey and 2 Ayrshire cows.

The number of breeding cows in 1896 was estimated at 832,000, of which 400,183 were dairy cows. The calves branded numbered 290,738. As the season was not unfavourable to stock, at least 80 per cent. of calves would have been a reasonable expectation. It is, therefore, plain that in a large number of instances the calves have not reached the age when they are usually branded. This was certainly the case with a large proportion of the calves dropped by what are termed dairy cows.

HORSES.

Australasia is eminently fitted for the breeding of most descriptions of horses, and attention has long been directed to this industry. At an early period the stock of the country was enriched by the importation of some excellent thoroughbred Arabians from India, and to this cause the high name which was acquired by the horses of Australia was largely due. The abundance of good pasture everywhere obtainable was also of great importance. The native kangaroo-grass, especially when in seed, is full of saccharine matter, and young stock thrive excellently upon it. This abundance of natural provender allowed of a large increase in the stock of the settlers, which would have been of great advantage had it not been that the general cheapness of horses led to a neglect of the canons of breeding. In consequence of the discovery of gold, however, they became very high priced. Under ordinary conditions this circumstance would have been favourable to the breed, and such was the case in Victoria. But in New South Wales it was far otherwise; the best of its stock, including a large proportion of its most valuable breeding mares, was taken by Victoria, with the result that for twenty years after the gold rush the horses of the colony greatly deteriorated. One class of stock only escaped—the thoroughbred racer was probably improved both by the importation of fresh stock from England, and by the judicious selection of mares. The period of deterioration ended about the year 1870, since which year there has been a perceptible improvement in all classes of horses. The number, too, steadily increased from 1883 to 1894, when it stood at 518,181. Owing to the drought, however, the number in 1895 fell to 487,943; but in 1896 there was an increase to 510,636, attributed to increased settlement, more breeding, and fewer sales owing to low prices. This is far above the number that, under existing conditions, can be profitably utilised in the colony; but the exports are still few. It is to this oversupply that the cheapness of horses is due. In 1895 the average price brought at auction for heavy draught horses was £10; but in 1896 the Western Australian demand had improved the call, and £1 to £2 more was obtained; medium draught horses brought £8 to £12, and powerful heavy, £15 to £16, and sometimes £20. Sound, unbroken saddle horses brought £6 in 1895, while in 1896 they might be had for a somewhat lower figure, the demand having decreased in consequence of the popularity of the bicycle. Remounts for India realised prices up to £15.

The following table shows the increase in the number of horses during the last twenty years:—

Year.	Horses.	Year.	Horses.
	No.		No.
1876	366,703	1887	390,609
1877	328,150	1888	411,368
1878	336,468	1889	430,777
1879	360,038	1890	444,163
1880	395,984	1891	469,647
1881	398,577	1892	484,309
1882	328,026	1893	493,231
1883	326,964	1894	518,181
1884	337,172	1895	487,943
1885	344,697	1896	510,636
1886	361,663		

The annual increase in the number of horses has not been greater than 1·67 per cent. during the twenty years covered by the above table, while the increase of population during the same period has been at the rate of 3·81 per cent.

For purposes of classification the horses of the colony have been divided into draught, light-harness, and saddle horses, the numbers of each particular kind being as follows :—

Class.	Thoroughbred.	Ordinary.	Total.
	No.	No.	No.
Draught	19,543	130,555	150,098
Light-harness	14,240	112,696	126,936
Saddle	29,194	177,800	206,994
Total..	62,977	421,051	484,028

There were 26,608 horses not returned to the Stock Department, and they are therefore omitted from this classification.

The colony is specially adapted for the breeding of saddle and light-harness horses, and it is doubtful whether these particular breeds of Australian horses are anywhere surpassed. The bush horse is hardy and swift, and capable of making very long and rapid journeys when fed only on the ordinary herbage of the country; and in times of drought, when the grass and water have become scanty, these animals often perform astonishing feats of endurance. Generally speaking, the breed is improving, owing to the introduction of superior stud horses and the breeding from good mares. Where there has been a deterioration in the stock, it has been due to breeding from weedy mares for racing purposes, and to the effect of drought. At the end of the year 1896 it was reported by the Inspectors of Stock that in thirty-eight of the sixty-five districts into which the colony is divided the horses were improving in quality; in twenty districts there was no improvement shown; while in only seven districts was there actual deterioration.

The approximate number of animals fit for market is as follows :—

Draught horses	22,254
Saddle horses	38,769
Light-harness horses....................................	23,934
Total	84,957

Of these, it is estimated that 20,090 are suitable for the Indian and China markets. The total number leaving the colony for markets outside Australasia during 1896 was only 2,365; but this was an advance of 671 on the number shipped in 1895, and of 1,202 on the number shipped in 1894. In 1896 the horses sent to India numbered 1,666, as compared with 1,064 in the previous year. The demand for horses in India is considerable, and Australia is a natural market from which supplies may be derived; but so far the number shipped has been but small, the speculation of sending horses to that country being open to many risks, as, apart from the dangers of the voyage, there is always an uncertainty as to the stock being accepted. As has already been stated, there was a demand from Western Australia in 1896, 773 horses being shipped to that colony during the year, as against 72 in 1895. The total outside demand, however, is small, and it has not therefore been found advantageous to breed horses to any great extent except for local requirements.

PASTORAL PROPERTY.

Pastoral property and stock form the largest factor in the wealth, not only of New South Wales, but also of all the other principal colonies of Australasia, and the return derived therefrom is the largest source of the income of its inhabitants. The total capital value of pastoral property in the colony, including land, improvements, and plant, as well as stock, was estimated in 1896 to be £113,755,000, of which £44,000,000 represented the value of land, £48,135,000 that of improvements and plant, and £21,620,000 that of stock. The value of land and stock has greatly fallen during the past few years.

The value of stock does not include dairy cattle and swine; if these were added the amount would be £24,270,000, and the total value of all pastoral property, £116,405,000. In the above returns is included the value of improvements on Crown lands under lease to the pastoralists, which for the year under review was estimated to be £9,108,350. The capital value of the leased land is, of course, excluded from the general estimate. From the nature of the industry it is difficult to arrive at more than a general estimate of the return from pastoral pursuits as at the point of production; the Sydney values are, however, more easily ascertained, and these are therefore given in the following estimate. From sheep the return for the year 1896 was approximately £9 879,000, excluding the value of tallow; from cattle excluding dairy products, the return was £990,000; from horses, £420,000; and tallow, £485,000; or £11,774,000 in all. If from the total just given be deducted 10 per cent., a fair approximation is arrived at of the station value of pastoral products for the year 1896. The estimated return falls far short of the return obtained in former years.

The number of stock in each colony at the close of the year 1896 was approximately as follows:—

Colony.	Sheep.	Cattle.	Horses.
	No.	No.	No.
New South Wales	48,318,790	2,226,163	510,636
Victoria	13,180,943	1,833,900	431,547
Queensland	19,593,696	6,507,377	452,207
South Australia	6,402,593	638,591	192,458
Western Australia	2,248,976	199,793	57,527
Tasmania	1,640,567	157,230	29,447
New Zealand	19,138,493	1,138,572	249,732
Australasia	110,524,058	12,701,626	1,923,554

The number of sheep and cattle runs in the colony at the end of the year 1896 was 44,292, of which 40,076 were enclosed, and 4,216 were open or unenclosed; 22,694 of the enclosed runs were properly subdivided into paddocks, and 13,992 were partially subdivided. The area comprised in these holdings was approximately 168,906,000 acres, about 42,598,000 acres being freehold, and 126,308,000 acres leased from the State. The improvements effected on pastoral estates have been valued at £48,135,000. Of this sum, fencing absorbs £30,811,750, representing 770,500 miles without wire netting, at an average rate of £38 10s. per mile, amounting to £29,664,250; and 17,000 miles with wire netting, at an average cost of £67 10s. per mile, amounting to £1,147,500. The dams for watering stock numbered 62,065, at an average value of £55 10s.; and there were 51,968 excavated tanks, worth on an average £140; while the wells sunk or bored numbered 8,405, the average value of each being £106; thus the total of all dams was £3,444,600, of tanks £7,275,520, and of wells £890,930. The value of improvements and plant other than those specified was about £5,712,200.

PUBLIC WATERING PLACES.

The Public Watering Places Act of 1884 (48 Vic., No. 16) came into operation on the 1st January of that year. By this measure the construction and administration of the artesian bores and public watering places are entrusted to the Minister of Mines and Agriculture, and are carried out under the direction of a superintendent and staff.

The first successful artesian well sunk in New South Wales was on the Kallara Station in 1879. The spot selected for the experiment was near a mud spring, and after boring 140 feet water was tapped which rose 26 feet above the curb, and the flow has continued ever since. The Government first commenced boring in 1883; but in 1891, on the recommendation of the officer in charge, all the Government augers were withdrawn from the field, and since that date the work has been done by contract. The prices paid vary somewhat, the range being from 17s. 6d. to £1 10s. for the first 500 feet; 17s. 6d. to £1 15s. up to 1,000 feet; £1 1s. 6d. to £2 up to 1,500 feet; £1 1s. 6d. to £2 2s. 6d. up to 2,000 feet; £1 14s. to £2 10s. up to 2,500 feet; and from £2 5s. to £3 10s. for depths up to 3,000 feet.

Public watering places are established on all the main stock routes of the colony. These works consist of dams, wells, and artesian bores, and at the present time 147 tanks, 30 dams or reservoirs, 32 wells, and 51 artesian bores are in existence. The tanks have a capacity of up to 5,000,000 gallons, and in depth they range from 15 to 20 feet. They are so constructed as to be fed during rainy weather by surface drains. The soil from the excavations is embanked around, in order to afford shelter from the wind, and so lessen evaporation, and also, where the contour is favourable, to conserve water above the ground surface. The total storage capacity of the tanks and wells above mentioned may be set down at 500,000,000 gallons, and the wells, if regularly worked, will yield a total of 450,000 gallons per day. Except at those dams and reservoirs which are of large extent and capacity, stock are not allowed direct access to the tanks, but are admitted to troughs which are filled by means of service reservoirs, into which the water is raised by various methods—steam, horse, or wind power. From the wells the water is mostly drawn by whims and self-acting buckets. In addition to this supply, the 51 Government artesian bores on the various stock routes of the colony yield approximately 23,000,000 gallons.

Of the dams, tanks, wells, and bores in existence, 181 have been let on lease for 5 years, at rentals ranging from £1 to £135, the total rental receivable by the State being £4,379. After being advertised in the *Government Gazette* and the local newspapers, the leases are submitted to public tender, the condition being that the tenant must constantly either reside at the watering place himself or provide a resident caretaker. In either case he may take stock on agistment and depasture a certain number of his own on the lands appertaining to the lease, and he is also encouraged to cultivate and improve such lands. He is permitted to charge a fixed scale for watering stock, viz.: 1d. per head for horses, 1d. for cattle, 4d. for camels, ¼d. for goats and pigs, and 1s. per 100 or portion of 100 sheep. Water may also be sold for domestic purposes at 6d. per 100 gallons. Seven public watering places have been placed under the authority of trustees or municipal councils, this course being permitted by the Act when expedient. In addition to the above, 34 dams and waterholes are open to the public without any fee or regulations.

LIVE STOCK OF THE WORLD.

The latest returns respecting the flocks and herds of the world, based on figures given in the report of the Statistician to the American Department of Agriculture, are given below. The important part which these colonies are destined to play in the wool markets of the world will be better understood when the character of the wool produced in Australia is made an item of comparison, as well as the actual number of sheep depastured :—

Continent.	Cattle.	Horses.	Sheep.	Swine.
	No.	No.	No.	No.
Europe	104,430,000	36,483,000	187,144,000	49,164,000
Asia	60,847,000	4,279,000	39,922,000	489,000
Africa	6,095,000	1,239,000	35,589,000	547,000
America	115,497,000	23,203,000	147,535,000	50,783,000
Australasia[*]	12,842,000	1,929,000	110,541,000	1,042,000
Total	299,711,000	67,133,000	520,731,000	102,025,000

[*] ncluding Pacific Islands.

In order to give a more definite idea of the development of the pastoral resources of New South Wales, the following table has been compiled, showing in different periods from 1860 the amount of stock that has been actually depastured in the colony. For the sake of convenience, the numbers of cattle and horses are expressed in terms of sheep; that is, allowance has been made at the rate of ten sheep for each head of large stock, so that the total shows what would have been the result had the cattle and horses been replaced by their equivalent of sheep. There is also shown the number of acres of land in the colony to each sheep of the totals thus found, as well as the number of such sheep per head of the population:—

Year.	Sheep.	Other stock expressed in terms of sheep.	Total.	Area per sheep.	Sheep per head of population.
	No.	No.	No.	Acres.	No.
1860	6,119,163	26,600,830	32,719,993	5·99	93·87
1865	8,132,511	22,444,920	30,577,431	6·40	74·73
1870	16,308,585	25,326,930	41,635,515	4·70	83·49
1875	25,353,924	34,917,820	60,271,744	3·35	101·42
1880	35,398,121	29,760,240	65,158,361	3·00	87·83
1885	37,820,906	16,620,120	54,441,026	3·60	57·44
1890	55,986,431	23,531,720	79,518,151	2·46	78·72
1891	61,831,416	25,061,320	86,892,736	2·25	75·98
1896	48,318,790	27,367,990	75,686,780	2·59	58·33

DISEASES IN STOCK.

On the whole, the stock of New South Wales was tolerably free from disease during 1896, especially as regards sheep and horses. Scab in sheep has been unknown in this colony for some considerable time, and indeed the whole of Australasia is at present exempt from this malady. In Western Australia, where it existed longest, no case has been met with since May, 1895. The importation of sheep from that colony into New South Wales is, however, still prohibited, and will remain so until the Western Australian Government declare the colony to be free from scab. There are sixty-five sheep districts in New South Wales. In 1896 foot-rot was noticed in nineteen districts; and in twenty districts the sheep were affected with fluke. In sixteen districts, to the extent of about 5½ per cent., the sheep were reported to have been infested with worms—in seven districts with stomach, lung, and tape worms; in five districts, with stomach and tape worms; and in four districts, with stomach worms. Anthrax, although there have been no serious outbreaks, has appeared in several districts, but the losses from this disease have been comparatively small. The dry season was distinctly unfavourable to the spread of such diseases as foot-rot and fluke.

The year was unusually free from epizootic diseases in horses. Anthrax was reported in one district; and Australian string-halt—a disease considered by the Government Veterinary Surgeon to be due to the presence of intestinal parasites—had appeared in nine districts. Prurigo continued to give trouble in some districts. Influenza, commonly known as "pink-eye," was reported from only one district. Glanders has not appeared since it was discovered among circus-horses which had arrived from America in November, 1891, six of which had to be destroyed. A considerable number of horses on the Lower Darling were attacked two years ago with an affection of the eyes, which in many cases resulted in total blindness; but in 1896 no outbreak of this disease occurred, probably on account of the dryness of the season. This ailment is now believed to have been due to parasites. The number of horses lost during the year through various causes, principally drought, was reported as 15,594.

With regard to cattle, pleuro-pneumonia was reported from twenty-eight districts, or 162 runs, while in the other districts the cattle were reported as free from that disease. Cumberland disease is reported to have killed 591 head, in seven districts, during the year. Symptomatic anthrax, or "black-leg," carried off 255 head, in six districts. Cattle to the number of 1,247, in thirty-six districts, are reported to have died from cancer and actinomycosis; and from ten districts are reported outbreaks of ophthalmia resulting in 283 deaths. Fifteen deaths from red water were reported in one district. Cattle to the number of 5,180, in thirty-nine districts, died from tuberculosis or had to be destroyed, and 432 deaths from eating supposed poisonous plants were reported from five districts.

Under the provisions of the Diseases in Sheep Act of 1866 (30 Vic., No. 16), and the Amending Acts of 1878 and 1882 (41 Vic., No. 19, and 46 Vic., No. 5), the colony is divided into sixty-five sheep districts, the boundaries of which are defined by proclamation. In each district a Board of five directors is annually elected by the sheep-owners, all who possess more than 500 sheep being entitled to vote, or to be elected. Owners of over 10,000 and under 20,000 sheep have two votes; over 20,000 and under 30,000, three votes; and those possessing more than 30,000, four votes. In addition, there are a chief inspector and inspectors, who are appointed by the Government, and who have power to enter on any run at any time and examine the sheep thereon. In order to provide funds for this work, all sheepowners are required to pay a contribution of £1 per 1,000 or portion of 1,000 sheep, but persons owning less than 500 sheep are exempt.

Every precaution is taken to prevent the introduction of disease from outside the colony, and all importations of live stock are regulated by the Imported Stock Act of 1871 (35 Vic., No. 6). By an Amending Act passed in 1884 (48 Vic., No. 12), it was made lawful, in certain cases, to suspend the operation of the principal Act for a period not exceeding six months; and at the present time all stock other than sheep may be introduced from any other Australian colony, except Western Australia, without undergoing quarantine. The importation of cattle, sheep, and swine is prohibited from all foreign countries and colonies, but is permitted from Great Britain and Ireland. Goats, deer, and other ruminants may only be landed in quarantine if intended for a zoological society. The master of a vessel arriving in New South Wales with foreign live stock on board is required, together with the attendant on the animals on the voyage, to make a declaration as to their health. The stock are then examined by an inspector and a veterinary surgeon, and, if pronounced free from infection, are conveyed by water to the quarantine ground. Here horses are detained 14 days; cattle, sheep, goats, deer, buffaloes, and other ruminants, 60 days; camels, 90 days; swine, 60 days; and dogs, 6 months. The number of animals quarantined during the last seven years was as follows :—

Year.	Horses.	Cattle.	Sheep.	Dogs.
1890	22	16	222	112
1891	74	26	432	31
1892	29	7	229	43
1893	22	8	55	78
1894	19	9	20	53
1895	11	5	......	78
1896	20	9	65	70

If stock on arrival are found to be infected, the animals are in certain cases at once destroyed, and in others treated as the Chief Inspector may direct. Under this provision, six horses, suffering from glanders and farcy, were destroyed in quarantine in 1891.

Further precautions for the protection of the health of the live stock of the colony are taken under the Animals Infectious Diseases Act of 1888 (56 Vic., No. 17), which makes it illegal for persons, unless specially licensed by the Minister for Lands, to keep or propagate disease microbes, or to inoculate animals therewith.

NOXIOUS ANIMALS.

The only large carnivorous animal in Australia at all dangerous to stock is the dingo, or native dog; but animals which consume the pasturage, such as kangaroos, wallabies, hares, and rabbits, are equally deemed by the settlers to be noxious. The rabbits are the greatest pest; at one period over 100,000,000 acres were infested with them, and 25,280,000 were destroyed in one year, and their skins paid for by the Government.

Rabbits first found their way into this colony from Victoria, where some were liberated upwards of thirty years ago in the Geelong district. Their presence first attracted serious attention in 1881, when, in the Address-in-Reply to the Governor's speech at the opening of Parliament, regret was expressed that the Ministerial programme did not include a bill to deal with them. Although this suggestion was ridiculed at the time it was made, complaints began to be heard in the south-western corner of the colony of the damage being done by the rabbits, which multiplied so rapidly that in 1882 they were to be met with on most of the holdings having frontages to the Murray. Attempts made to cope with them under the Pastures and Stock Protection Act were ineffectual, and on the 1st May, 1883, a Bill having for its object their destruction became law. This Act (46 Vic., No. 14), known as the "Rabbit Nuisance Act," provided for the compulsory destruction of rabbits by the occupants of the land, who were to receive a subsidy from a fund raised by an annual tax upon stockowners. This fund soon proved inadequate, and from the 1st May, 1883, to the 30th June, 1890, when the Act was repealed, it was supplemented by £503,786 from the Consolidated Revenue. The following table shows the amount of assessment for each year during which the Act was in operation:—

Year.	Amount of Tax.	Year.	Amount of Tax.
	£		£
1883 (from 1st May)	490	1888	157,252
1884	84,830	1889	98,312
1885	159,554	1890 (to 30th June)	4,714
1886	115,711		
1887	210,594	Total ......£	831,457

In addition to this amount of £831,457 and to the Government contribution of £503,786, landowners and occupiers are estimated to have contributed £207,864, so that the total cost during the above-mentioned period exceeded £1,543,000.

The Rabbit Act of 1890 (54 Vic., No. 29) repealed the 1883 Act and those provisions of the Pastures and Stock Protection Act (44 Vic., No. 11) relating to rabbits. It also provided for the proclamation from time to time of Land Districts as "infected," and for the encouragement of the erection of rabbit-proof fences. From the 1st July, 1890, to the 31st December, 1896, the State expenditure on account of rabbits was only £37,812, the greatest part of which—£28,806—has been devoted to the erection of rabbit-proof netting. In August, 1887, the Government offered a reward of £25,000 to any person who would make known a process for the effectual extermination of the pest; but the offer was subsequently withdrawn. Conferences of landowners and pastoralists on the subject of rabbit destruction were held in October, 1885; June, 1886; and April, 1895. A new Rabbit Act was prepared under the direction of the Minister for Lands in 1897, and will be submitted to Parliament after the Boards established under the Pastures and Stock Protection Act have made suggestions as to amendments.

A wire-netting fence, 346 miles in length, following the boundary between New South Wales and South Australia, from the Murray northwards, has been erected by the New South Wales Government, the cost of its repair being shared by the Government and the owners of the holdings adjoining the fence. A rabbit-proof fence has been erected at the public expense between Barringun on the Queensland border and the River Darling at Bourke, a distance of 84 miles, the cost of its maintenance being borne by the owners of the holdings adjoining it. In addition to this, the whole of the fence along the western side of the railway line from Bourke, *via* Blayney and Murrumburrah, to Corowa in the extreme south of the colony, a distance of 612 miles, has been rendered rabbit-proof, the Railway Commissioners undertaking the work of supervision. Another rabbit-proof fence is now being erected at the joint expense of the Governments of Queensland and New South Wales, from Mungindi to Narrabri, a distance of about 180 miles, 115 of which are practically finished, thus making the total length of State-constructed barrier-fencing 1,157 miles. It is estimated that altogether about 16,800 miles of wire-netting fence have already been erected, and it is known that many hundreds of miles are now in course of erection. The same kind of netting has not been used on all lines of fencing. On the line from Corowa to Narromine the netting is 17 gauge, 1½ inch mesh, and 42 inches in width. The contract price for this netting was £31 per mile, and the cost of the fence about £50 per mile. On the South Australian border, netting of 17 gauge, 1¼ inch mesh, and 42 inches in width, was used, with a contract price of £37 per mile of netting, and a total cost of £76 per mile of fence. The netting used on the line from Narromine to Bourke is 16 gauge, 1½ inch mesh, and 48 inches wide. The contract price for this netting was £48 10s. per mile, and the cost of the fence about £84 per mile. On the fence in course of erection on the Queensland border, netting of 16 gauge, 1½ inch mesh, and 42 inches in width, is being used.

The Pastures and Stock Protection Act (44 Vic., No. 11) and the Amending Act (45 Vic., No. 23) provide for the appointment in each sheep district of eight directors, of whom five are the sheep directors for the district and three are owners of large stock, elected annually by owners of not less than ten head. Those whose stock do not exceed 500 in number are entitled to one vote; those who have from 500 to 2,000, to two votes; from 2,000 to 5,000, three votes; and owners of upwards of 5,000, four votes. Power is given to these directors to take measures to ensure the destruction within their districts of all noxious animals, and to pay as rewards for such destruction, by way of bonus, such sums as may be fixed by the Board from time to time. The inspectors of sheep act in their respective districts as inspectors under this Act. To carry into effect the various provisions of the Act, assessments are levied, not exceeding in the annual aggregate 3d. per head of large stock and ½d. per head of sheep. Owners of less than 100 sheep or 10 head of large stock are exempted. The amount of assessment collected during 1896 was £38,252.

For the destruction of noxious animals other than rabbits, the amount paid by stockowners in 1896 was £35,934. The number of kangaroos destroyed during the year was 80,639; of wallabies, 655,309; kangaroo rats, 160,808; wombats, 112; bandicoots, 1,879; pademelons, 21,791; wild pigs, 23,300; hares, 551,548; native dogs, 13,138; opossums, 7,142; eagle-hawks, 8,810; crows, 48,308; emus, 4,050; foxes, 66; and flying-foxes, 3,591. The loss of stock from native dogs is reported to have been 195,455 sheep, valued at £35,670; while the loss from tame dogs is returned at 62,135 sheep, valued at £12,916.

The reward paid for scalps of noxious animals differs greatly according to the locality, and is determined by the various Boards. The prices paid during 1896 were as follow:—For kangaroos, from 1½d. to 6d.; wallaroos, 2d.; wallabies, from 1d. to 3d.; pademelons, from ½d. to 3d.; hares, from 1d. to 4d.; kangaroo rats, from 1d. to 3d.; bandicoots, ½d. to 3d.; native dogs, from 10s. to 40s.; pups, from 2s. 6d. to 7s. 6d.; opossums, ¼d. and ½d.; wild pigs, 3d.; eagle-hawks, from 3d. to 2s. 6d.; emus, 6d.; crows, from 2d. to 1s.; foxes, from 10s. to 20s.; and flying-foxes, 1d. and 1½d.

DAIRY FARMING.

Dairy farming has made progress of late years, and there is every prospect of its developing into a most important industry. The introduction of the factory system in convenient centres, the great improvements effected in dairy appliances, and the establishment of direct railway communication with Sydney, have done much towards developing the industry. Dairy farming is not now, as formerly, wholly confined to farmers, as many graziers in a large way of business, especially in the coastal districts, have lately turned their attention to the industry, and are likely to find it profitable. When the factory system was first introduced the factories were mostly co-operative, and the process of cream separation and butter making were carried on together. This arrangement is gradually dying out, and central butter factories, fed by numerous separating places called "creameries," are taking the place of the others. The advantages to be gained from the change are considerable—a butter of more uniform quality is made in each centre, and there is a reduction in the cost of manufacture, owing to the greater quantity made and the improved appliances, such as refrigerators, which the larger establishments can profitably provide.

Most of the native grasses are particularly suitable for dairy cattle, as they possess milk-producing as well as fattening qualities The mildness of the winter season enables dairymen to avoid the heavy expense of stall feeding, and although a certain amount of winter fodder is grown, it is given to the cattle in the fields. The crops most popular for this purpose are maize, barley, oats, rye, lucerne, and the brown variety of sorghum or planter's friend. Ensilage, although very good for dairy cows, is not used so generally as it should be, the latest returns showing that there were only 34 pit and 74 stack silos in the colony, making altogether 13,498 tons of ensilage. The area of land devoted to green food and permanent artificially-sown grasses has been largely extended during the last few years, and in March, 1897, it amounted to nearly 460,000 acres. The produce of this land is devoted to the depasturing of dairy cattle, and as the area is still below the present requirements, an extension of this form of cultivation may be anticipated. The number of dairy cows was returned as 400,183, distributed as follows:—

	Number.
Northern Division—	
Coast	63,536
Table-land	29,059
Western Slope	12,292
Total, Northern Division	104,887
Central Division—	
Hunter and Hawkesbury Valleys	37,425
County of Cumberland and Metropolis	22,179
Table-land	37,163
Western Slope	5,320
Total, Central Division	102,087
Southern Division—	
Coast	112,966
Table-land	57,184
Western Slope	16,308
Total, Southern Division	186,458
Western Plains	6,751
Total, New South Wales	400,183

Constant attention to the peculiarities of the climate and the wants of the colonists, as well as the judicious crossing of strains, has developed a breed of cows peculiar to Australia, especially in the coast districts immediately south of Sydney; but all well-known breeds of milkers are found in New South Wales. The milk yielded by the dairy cows of the colony may be set down at about 108,050,000 gallons, of which the quantity consumed in making butter and cheese during the past year was about 74,111,000 gallons. The weight of the butter made was 25,874,277 lb., and of cheese, 4,019,844 lb. The yield of milk per cow is a very variable quantity; in some of the principal dairy centres as much as 500 gallons is returned as the yearly average, while in other districts the yield falls far short of this. For the whole colony the average may be set down at a gallon per day for every cow milked, but the cows are only milking for about nine months of the year, so that each yields approximately 270 gallons.

The quantity of milk required to make a given weight of butter varies considerably according to whether the milk is treated by a separator or in the old fashion. A great proportion of the butter now made is what is usually termed factory or separator-made, and the average quantity of milk used per lb. of butter produced is 2·6 gallons, or 26 lb. 2 oz. For ordinary hand-made butter the quantity required is about 3 gallons, so that there is a saving of about 13 per cent. by the former method, in addition to the extra value of the butter produced, the price in the Sydney markets during 1896 being from 1d. to 2d. per lb. higher for the factory-made than for the ordinary kind. No statistics respecting the manufacture of butter and cheese were collected prior to 1887, when the quantity made was 16,106,000 lb. and 5,780,000 lb. respectively. The course of manufacture is shown in the following table, which gives the quantity of butter made during the last nine years:—

Year ended 31st March.	Butter.		
	Factory.	Farm.	Total.
	lb.	lb.	lb.
1889	......	......	15,550,440
1890	......	......	17,600,264
1891	8,049,656	10,484,474	18,534,130
1892	7,661,197	10,701,700	18,362,897
1893	10,141,066	11,257,234	21,398,300
1894	15,635,360	10,755,484	26,390,844
1895	17,567,646	9,792,049	27,359,695
1896	16,770,189	6,525,323	23,295,512
1897	18,828,293	7,045,984	25,874,277

The number of hands employed at dairy farming in 1896 was 23,634; of these, 11,686 were males, and 11,948 females. Included in the total are 1,397 persons employed in the various factories, which numbered 457, employing steam equal to 2,929 horse-power, the plant used being valued at £212,216. The principal factories are situated in the Shoalhaven, Camden, Kiama, Eden, and Richmond River districts. The produce of the factories in 1896 was 18,828,293 lb. of butter, and 1,887,106 lb. of cheese.

The following table shows the manufacture of butter and cheese in districts :—

District.	Butter.	Cheese.
	lb.	lb.
Northern Division :—		
Coast	3,974,544	51,119
Table-land	742,218	90,027
Western Slope	102,310	1,422
Total, Northern Division	4,819,072	142,568
Central Division :—		
Hunter and Hawkesbury Valleys	2,708,469	21,356
County of Cumberland and Metropolis	5,956,094	16,600
Table-land	1,604,431	186,709
Western Slope	36,352	2,700
Total, Central Division	10,305,346	227,365
Southern Division :—		
Coast	8,209,176	3,540,794
Table-land	2,189,854	101,603
Western Slope	305,651	7,290
Total, Southern Division	10,704,681	3,649,687
Western Plains	45,178	224
Total, New South Wales	25,874,277	4,019,844

The following table shows the imports and exports of butter and cheese for the last ten years :—

Year.	Butter.		Cheese.	
	Imported.	Exported.	Imported.	Exported.
	lb.	lb.	lb.	lb.
1887	1,034,544	1,041,152	318,099	247,826
1888	2,258,704	764,960	691,148	300,375
1889	1,904,737	662,489	955,494	300,750
1890	838,703	1,120,044	212,801	288,902
1891	1,410,508	572,212	260,428	109,965
1892	729,510	1,757,319	136,597	82,897
1893	472,542	3,177,911	94,721	124,700
1894	417,740	4,595,430	68,809	231,251
1895	2,199,261	2,147,650	265,511	200,721
1896	2,114,126	2,707,088	1,214,506	264,800

A large portion of the imports shown above was for the western districts of the colony, where dairy-farming naturally has not been attempted, owing to the prevailing climatic conditions. The import into Sydney in 1896 was nearly 1,347,000 lb. below the export, so that the metropolitan market is evidently in the hands of the local farmers.

The surplus of butter over local requirements amounts during the summer months to nearly 75 per cent. of the total output, and the English market absorbs nearly all of this. The remarkable increase in the export trade is a satisfactory indication that the dairymen of this colony have begun to realise the enormous market for their produce which is presented by the teeming populations of the United Kingdom. It is only during the last five years that Australian butter has seriously influenced the London market, for although for some time small consignments had been sent to London, the huge import into that city from Denmark and Sweden practically controlled the price of the Australian article. The position is now, however, changed, about two-thirds of all the butter imported into London during the winter months being of Australian origin, and on many occasions during the past three seasons Australian creamery butter commanded a higher value than Danish. The prices obtained during the past year for Australian butter in the London market were very satisfactory, especially in comparison with the phenomenally low prices ruling during 1895. Great progress has been made of recent years in the preparation of a good article for export, and many large refrigerating plants have been erected for that purpose in the most suitable localities. The prices per cwt. for New South Wales butter in London during the last five years were as shown below:—

Month.	1893.		1894.		1895.		1896.		1897.	
	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.
	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.
January ...	106	94	108	98	96	75	*	*	106	100
February ..	98	82	98	86	94	72	*	*	102	94
March	94	80	96	84	88	68	*	*	96	85
April..... ..	*	*	*	*	80	60	*	*	92	80
May	*	*	*	*	78	60	*	*	...	...
June.........	*	*	*	*	77	54	*	*	...	...
July	*	*	*	*	64	56	*	*	...	...
August.....	*	*	*	*	58	56	*	*	...	...
September.	*	*	*	*	*	*	*	*	...	...
October	114	102	106	94	*	*	106	100	...	...
November.	108	96	108	98	*	*	102	98	...	...
December..	110	98	116	104	*	*	100	94	...	...

* No quotations.

The experience of the trade so far has shown that butter should be made expressly for export, and of the best possible quality and texture, salted and coloured to suit the taste of the particular market for which it is intended. Were greater uniformity in the characteristics of the produce secured, London purchasers would be enabled to "buy to arrive," which would place New South Wales butter on a much better footing in the market. These results can only be attained by paying the greatest attention to cleanliness in all the processes of manufacture, taking care in the reduction of the temperature of the cream before it is sent by rail or road to the factory, and making a more judicious selection of cows. The most suitable form of box, the method of packing, and the quality of the parchment paper used, are all matters of importance if the trade is to succeed, and must receive the attention of the classes interested, as must also the question of winter feeding, so as to secure a continuous supply all the year round. Buyers naturally give preference to sources from which they can receive a constant supply, and periodic shipments have practically each year to oust afresh competing butters before they can gain a footing. Another matter requiring consideration is the advisability of direct shipments from the factories to specially appointed agents in London or other centres. A serious fault, too, in a great deal of the butter hitherto shipped, has been the presence of too much foreign moisture, which, freezing more readily than the fatty substances of the butter, spoils the texture, and causes the article to become crumbly. Satisfactory advances in these respects have been made in the course of the last two years, but there is still room for improvement. The local market has been marked by no exceptional features during last year. The average prices ruling in Sydney were :—

Month.	Dairy. per lb.	Factory. per lb.	Month.	Dairy. per lb.	Factory. per lb.
	d.	d.		d.	d.
January	9½	11¼	July..........	10¼	11½
February	9	10½	August........	10	11
March	6½	7½	September....	9	10½
April..........	7½	9½	October	7	8¾
May........ ...	10	11	November....	6½	7¾
June	9¼	10½	December....	6¼	7¾

Creamery butter averaged about ½d. per lb. more than the prices here given for factory butter.

The manufacture of cheese hitherto has not been so successful as that of butter, although it has been abundantly proved that when sufficient care is exercised in making and shipping, New South Wales cheese can find a ready sale in London at remunerative prices. The quantity manufactured since 1889 is given below :—

Year ended March 31.	Cheese.		
	Factory.	Farm.	Total.
	lb.	lb.	lb.
1889	....	....	5,687,702
1890	....	....	4,834,286
1891	3,592,717	1,203,850	4,796,567
1892	3,722,264	1,783,807	5,506,071
1893	1,803,674	3,214,622	5,018,296
1894	1,614,383	3,078,721	4,693,104
1895	1,656,703	3,163,709	4,820,412
1896	1,670,255	1,268,530	2,938,785
1897	1,887,106	2,132,738	4,019,844

The price of cheese in the Sydney market during 1896 was as follows :—

Month.	Large, per lb.	Loaf, per lb.	Month.	Large, per lb.	Loaf, per lb.
	d.	d.		d.	d.
January	6¼	6¾	July......................	4¼	4½
February	6¼	6¾	August	4¼	4¾
March......................	5¾	6¼	September	4¼	4½
April	4½	5	October	3¾	4¼
May.................	4¾	5	November	4	4½
June	4¾	5¾	December	3½	4¼

Australian cattle, probably because they live in a more natural state, are remarkably free from milk-fever and other complaints attendant on calving. A large number of calves are reared on separated milk, to which a little pollard or grain is added ; but better results have been achieved by providing a foster-mother, three to four calves being allowed to each cow.

The value of the dairy industry to the colony, excluding that of swine-breeding, is estimated at £1,862,000 for the year 1896. The value of milk not made into butter, but used for human consumption, was £885,000 ; of butter, £863,000 ; and of cheese, £67,000 ; while the balance of the milk, used mostly in feeding pigs, was worth approximately £47,000. The dairy cattle of the colony were valued at £2,200,000.

SWINE.

The breeding of swine, which is usually carried on in conjunction with dairy-farming, has been very much neglected in New South Wales, and in 1896 the number of stock was 93,624 less than in 1880. Considering the importance which the industry has attained in other countries, it is a matter of surprise that more attention has not been paid to it in this colony, where the conditions of farming in many parts, more especially in the coast districts, offer great facilities for the raising of this class of stock. The following table shows the number of swine in New South Wales for 1860 and subsequent periods:—

Year.	Swine.	Year.	Swine.
	No.		No.
1860	180,662	1887	264,111
1865	146,901	1888	248,583
1870	243,066	1889	238,585
1875	199,950	1890	283,061
1880	308,205	1891	253,189
1881	213,916	1892	249,522
1882	154,815	1893	240,860
1883	189,050	1894	273,359
1884	211,656	1895	223,597
1885	208,697	1896	214,581
1886	209,576		

The production of swine is a large factor in dairy-farming, but the increase in the number of stock has not kept pace with the increase in the quantity of milk available for food. Although at the various farms, factories, and creameries many more pigs could be fattened, the large quantity of bacon and hams imported annually shows that the local demand for swine of a good class or breed is far in advance of the supply. The breeds generally met with in the colony are the improved Berkshire, Poland, China, Yorkshire, and Prince Albert, and probably the Tamworth and Sussex might be advantageously introduced. The crosses from these breeds are numerous, but unfortunately in the majority of cases the animals have deteriorated very considerably from want of care and selection in the breeding, and dairymen find it difficult to obtain a good class of store pig. A farmer who sells his milk to a creamery can purchase separated milk at from 2d. to 3d. for 10 gallons, a price which renders it a most profitable pig feed, provided that other crops, such as maize, rye, peas, mangolds, or pumpkins, are grown to supplement the milk diet. At present there are few factories devoted entirely to the curing of bacon and hams, and the pigs are usually sold when fat as porkers at from 60 lb. to 90 lb. weight, the majority being sent to the ydney market alive. The price ruling for good porkers during 1896 anged from 15s. 9d. in May to 22s. 6d. in October. Owing to neglect to row root crops for winter feed for pigs, when milk is scarce, the demand r store pigs at the commencement of the summer is very great, while here is usually a corresponding glut of fat pigs at low prices as winter pproaches.

The number of swine slaughtered during 1896 was 149,971, of which 4,690 were killed at the Metropolitan abattoirs; and the quantity of acon and hams made was 5,303,763 lb., chiefly in the South Coast istrict. It is possible, however, that a large number of swine are aughtered for bacon-curing, concerning which returns are not collected. he following is a statement of the quantity of bacon and ham made in e various districts :—

District.	Bacon and Hams.
Northern Division—	lb.
Coast	407,612
Table-land	337,174
Western Slope	55,772
Total, Northern Division	800,558
Central Division—	
Hunter and Hawkesbury Valleys	300,038
County of Cumberland and Metropolis	1,329,743
Table-land	467,443
Western Slope	25,424
Total, Central Division	2,122,648
Southern Division—	
Coast	1,750,268
Table-land	414,966
Western Slope	210,681
Total, Southern Division	2,375,915
Western Plains	4,642
Total, New South Wales	5,303,763

There is no reason why the production of bacon and hams should not very largely increased, and an export trade in these articles estab-hed with profit to the colony. More bacon factories are wanted ted with refrigerating machinery, so that curing may be continued ring the summer months. In these central establishments, moreover, eater care could be exercised both in securing uniformity in the quality the article and in cutting. This last is an important matter, as there as much as 1d. to 2d. per lb. difference between a well-cut and a badly-cut ham. For export the animals should be grown larger, as English bacon pigs run to 300 or 400 lb. weight each. The quantity of bacon and hams cured since 1889 is shown below :—

Year ended 31st March.	Bacon and Hams.		
	Factory.	Farm.	Total.
	lb.	lb.	lb.
1889	....	....	7,057,903
1890	....	....	6,331,709
1891	2,541,948	4,888,023	7,429,971
1892	2,120,269	3,889,331	6,009,600
1893	1,803,824	3,330,253	5,107,077
1894	3,704,996	4,055,392	7,760,388
1895	2,417,373	4,375,530	6,792,903
1896	2,522,695	2,728,022	5,250,717
1897	2,902,987	2,400,776	5,303,763

The number of swine in each of the Australasian colonies at the close of 1896 was as follows :—

Colony.	Swine.
	No.
New South Wales	214,581
Victoria	337,588
Queensland	97,434
South Australia	61,114
Western Australia	31,154
Tasmania	55,261
New Zealand	209,853
Australasia	1,006,985

It will thus be seen that Victoria has a larger number than any other colony, its total being 337,588, or 33·5 per cent. of the whole herds; New South Wales ranked second with 214,581, or 21·3 per cent. ; and New Zealand third with 209,853, or 20·8 per cent.

SLAUGHTERING.

Slaughtering for food is permitted only in places licensed for the purpose, but such establishments are very numerous. In the metropolitan district there are 75, and in the country districts 1,830 slaughter-yards, employing respectively 390 and 5,569 men ; in all, 1,905 establishments, and 5,959 men.

The consumption of meat cannot be given accurately for the metropolitan and country districts separately, as several of the largest country slaughter-yards are carried on for the purpose of supplying the metropolitan market. For the colony generally it is estimated that the average annual consumption of mutton per inhabitant is 108·4 lb., of beef 156·3 lb., and of pork 13·7 lb., making a total consumption of 278·4 lb.

The following table shows the quantity of stock of each kind killed during 1896:—

Stock.	Number slaughtered in 1896.		
	Metropolitan.	Country.	Total.
	No.	No.	No.
Sheep	1,279,922	4,797,498	6,077,420
Lambs	16,124	103,205	119,329
Bullocks	69,663	163,212	232,875
Cows	12,669	86,241	98,910
Calves	10,281	9,180	19,461
Swine	89,597	60,374	149,971

These figures represent the stock slaughtered for all purposes. Of the sheep and lambs, 3,107,273, including 1,159,945 killed on stations and farms, represent the local consumption; 940,676 sheep were required by meat-preserving establishments; 1,372,373 for freezing for export; while 657,098 were boiled down for tallow. All the cattle killed, except 30,766 treated in the meat-preserving works and 4,072 exported frozen, were required for local consumption; and of the swine, 59,190 were cured as bacon, and 90,781 killed for ordinary consumption. The following shows the slaughtering of stock for nine years:—

Year.	Establishments.	Hands Employed.	Sheep.	Lambs.	Cattle.			Swine.
					Bullocks.	Cows.	Calves.	
	No.	No.	No.	No.	No.	No.	No.	No.
1888	1,410	3,443	1,671,039	76,916	164,977	60,570	18,339	198,627
1889	1,409	3,713	1,802,782	68,977	169,545	69,650	33,969	167,004
1890	1,485	3,642	2,014,065	71,887	190,699	62,870	22,498	173,354
1891	1,617	4,154	2,404,953	127,709	210,731	66,391	25,813	178,355
1892	1,870	4,869	3,371,454	84,728	188,518	123,058	27,022	184,065
1893	2,105	5,786	7,883,650	150,458	230,388	78,661	23,907	188,985
1894	2,146	5,718	8,098,408	154,470	238,349	83,974	23,979	190,277
1895	1,864	6,297	8,256,079	106,924	276,998	87,481	23,618	178,588
1896	1,905	5,959	6,077,420	119,329	232,875	98,910	19,461	149,971

The value of stock slaughtered can be determined with exactness only for the metropolitan market. Taking all stock sent to the Homebush saleyards, at Sydney, during 1896, for the purpose of slaughter, the price of sheep averaged 7s. to 12s. for wethers with wool, and 5s. to 8s. shorn; 6s. to 11s. for ewes with wool, and 4s. to 8s. shorn. For bullocks the average price was £4 to £4 10s. per head; and for cows, £3 to £3 10s. At the Abattoirs mutton sold at an average of 1d. to 1¼d. per ℔.; the full skin was worth 4s. 6d., the shorn skin 9d. to 1s. 6d., the fat 1¼d. per lb., and the head 1½d. Beef brought from 1d. to 1½d. per ℔.; the head and feet were worth from 1s. 3d. per set; the fat, 1d. per lb.; a bullock hide, 16s.; a cow hide, 9s. to 11s.; and offal, 2s. 6d. per head. Veal averaged from 1d. to 1¼d. per ℔., the skin being worth 2s. 6d. Good lambs brought 3s. to 4s. each, and pork sold for 3½d. per ℔., good fat realising about 3d. per carcase.

SURPLUS STOCK.

If the pasture resources of New South Wales expanded at a ratio at all approaching that of the increase of live stock, the inability of the colony to dispose of its surplus would not be a matter of material concern, for though all classes of sheep decrease in value after a certain age, the value of their wool, except in special and exceptional circumstances, is more than equal to the value of the grass they would consume. It unfortunately happens, however, that under the present conditions of pasturage the number of sheep in the colony is, in a favourable season, too great to be properly maintained, so that the disposal of the surplus is an important question.

By "cast" is meant the number at such age when it would be more profitable to send them for slaughter than to keep them, in the case of ewes for breeding, or for further growth in the case of non-breeders. The cast, expressed as a percentage of the whole of the sheep depastured, is a variable quantity, which, however, may be taken as ranging from 13 to 14½ per cent., so that for the present year the cast will be about 6,770,000, viz., about 3,075,000 ewes and 3,695,000 wethers. Against this there is a local consumption of 3,107,000, and about 745,000 additional are required for the markets of the neighbouring colonies. This gives a total consumption of 3,852,000, leaving a present surplus of 2,918,000.

There are already in the colony works for preserving mutton whose output for the year 1896 amounted to a little over 940,000 sheep, while the present frozen-meat trade requires some 1,372,000 more, reducing the surplus to 606,000 sheep—by no means a large number. During 1896, 657,000 sheep were boiled down for tallow, so that the whole of the surplus sheep of the colony were disposed of, although, it must be admitted, partly in a manner very disheartening to the grazier. As regards cattle, affairs are very different. The annual cast for 1896 was about 269,000 head, while the consumption amounted to 351,000, showing a deficiency of 82,000. From Queensland there were imported during the year 250,321 head in excess of the export. For the past five years there has been a net import of cattle to the extent of about 118,000 a year, so it may safely be assumed that New South Wales if left to her own resources would not be able to maintain an export trade. It is well known that there is a large part of the colony well adapted for carrying cattle, and if the over-sea trade became profitable there is no doubt that much of the country over which sheep are now grazed would be devoted to cattle, the necessary stores being obtained from Queensland.

The question of the live stock trade with Europe is so important to Australia that an account of the results attained so far was given at some length in a previous edition of this book. The efforts to establish an export trade in live cattle with the United Kingdom have, however, been practically abandoned, the mortality being sufficiently high to discourage those under whose auspices the experimental shipments were made. In 1894 there was an export of 108 live cattle to the United Kingdom; in 1895, 1,857 head were shipped to the United Kingdom, and 123 to France; but in 1896 no trade was transacted. Most of the difficulties met with arose from the wildness of the cattle, nearly all of which were drawn from the bush, trucked long distances to the port of shipment without sufficient nourishment, unskilfully hoisted on board in a starved and fevered condition, consigned to unsatisfactory quarters, and submitted to close confinement and cultivated food for the first time. To make matters worse, the season was unfortunately a dry one, and the drought caused a scarcity in prime beasts, so that altogether there was no inducement to anyone to touch the trade. The disadvantages under which the pioneer shipments laboured, are not, of course, of such a kind as to prove unsurmountable to a determination to breed with the special object of consigning the cattle to Europe; but there will always be keen competition to face from countries very much nearer to the coveted markets than is Australia, and the risk of landing the cattle at a time when prices are below a payable figure. During the last few years the Argentine Republic has made great strides in the live cattle and sheep trade, and is already one of Great Britain's chief sources of supply.

FROZEN-MEAT TRADE.

Although there has been a marked fall in the price of English mutton sold in London, it must not be assumed that this is entirely or even in a considerable degree attributable to the development of the frozen-meat trade. The advanced prices obtained for English mutton in 1888 and other years were due to a decrease in the quantity available for consumption, notwithstanding that the falling off was more than compensated for by an increase in the quantity of frozen meat imported. In 1894 and 1895 there was a marked advance in the price of English mutton, compared with what was obtained in the previous year. This was also due to a shortage in the home supply. It will be noticed that the advance in price was not felt by the imported mutton; on the other hand, the advance obtained for frozen mutton in 1889 and other years was not due to a shortage in the supply of home-grown mutton, but to decreased importations. These circumstances, taken into consideration with the facts disclosed by the following table, would seem to favour the conclusion that in England the class requiring the locally-grown article is quite distinct from that using frozen mutton. The following table shows the consumption of fresh mutton in England; the figures represent the number of animals, the weight of which cannot be given:—

Year.	Locally-raised Sheep available for Slaughter.	Live Imports.	Frozen Imports.	Total Consumption.
	No.	No.	No.	No.
1883	11,340,000	1,116,000	201,000	12,657,000
1884	11,750,000	945,000	632,000	13,327,000
1885	12,027,000	751,000	777,000	13,555,000
1886	11,582,000	1,039,000	1,187,000	13,808,000
1887	11,760,000	971,000	1,542,000	14,273,000
1888	11,575,000	956,000	1,975,000	14,506,000
1889	11,794,000	678,000	2,164,000	14,636,000
1890	12,667,000	358,000	2,948,000	15,973,000
1891	13,414,000	344,000	3,358,000	17,116,000
1892	13,457,000	79,000	3,310,000	16,846,000
1893	12,681,000	63,000	3,890,000	16,634,000
1894	11,987,000	485,000	4,324,000	16,796,000
1895	11,910,000	1,065,000	5,053,000	18,028,000
1896	12,342,000	770,000	5,718,000	18,830,000

A satisfactory solution of the question of disposing of the surplus stock by export to Europe is surrounded with great difficulty. It has not yet been ascertained whether a remunerative price for mutton can be maintained in London, nor—what is often lost sight of—whether the colony, under the present conditions of stock-raising, is able to fatten off the surplus stock it now produces; this last is very doubtful. One of the essentials of a successful export trade is continuity of supply, without which the business cannot thrive. On page 378 there is given a statement of the estimated losses which the pastoralists have suffered through drought during a period of twenty-three years. From this it appears that in only nine of those years has there been no loss through the seasons. In some of the other years the loss has been extreme, and a recurrence of similar seasons would leave little of the cast available for export, even if it were possible to fatten the stock. These are matters which require consideration in connection with the export trade from which so great hopes are entertained.

The quantity of fresh and frozen mutton imported into the United Kingdom during 1896 was 324,258,000 lb.; besides this, there was an import of 770,000 sheep. These two classes of imports would be equal to about 7,525,000 carcases of Australian mutton, reckoning the average carcase at 48 lb. The present New South Wales surplus, after deducting the local demand, and the requirements of the meat-preserving works is, as shown on page 416, 1,978,000 sheep. The following is a statement of the average wholesale prices obtained in various years for English and frozen mutton sold in London :—

Year.	Best English.	New Zealand.	New South Wales.	River Plate.	Year.	Best English.	New Zealand.	New South Wales.	River Plate.
	d.	d.	d.	d.		d.	d.	d.	d.
1883	9	7	$6\frac{2}{7}$	6	1890	8	$4\frac{5}{8}$	$3\frac{11}{12}$	$3\frac{5}{8}$
1884	$7\frac{3}{4}$	6	$5\frac{1}{2}$	$4\frac{3}{4}$	1891	7	$4\frac{1}{4}$	$3\frac{1}{8}$	$3\frac{1}{8}$
1885	$7\frac{1}{8}$	$5\frac{5}{16}$	$4\frac{7}{8}$	$4\frac{2}{5}$	1892	7	$4\frac{1}{3}$	$3\frac{1}{3}$	$3\frac{1}{8}$
1886	8	$5\frac{1}{8}$	$4\frac{1}{2}$	$4\frac{3}{4}$	1893	$6\frac{1}{8}$	$4\frac{1}{4}$	$3\frac{1}{4}$	$3\frac{1}{2}$
1887	$6\frac{1}{8}$	$4\frac{1}{3}$	4	$3\frac{7}{10}$	1894	$7\frac{3}{8}$	$4\frac{1}{8}$	$2\frac{7}{8}$	$2\frac{7}{8}$
1888	$7\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{12}$	$3\frac{7}{10}$	1895	$7\frac{1}{2}$	$3\frac{7}{8}$	$2\frac{7}{8}$	$2\frac{7}{8}$
1889	$8\frac{1}{4}$	$5\frac{1}{12}$	$4\frac{3}{8}$	$4\frac{1}{8}$	1896	$6\frac{7}{8}$	$3\frac{5}{8}$	$2\frac{3}{8}$	$2\frac{3}{8}$

The table given below shows the growth of the export trade in New South Wales meat from the introduction of the system of shipping mutton in a frozen state in 1881. Beef, mutton, and pork are all included in the figures. The weight of the preserved meat exported prior to 1887 cannot be given, as it was not recorded :—

Year.	Frozen.		Preserved.		Other.		Total Value.
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
	cwt.	£	lb.	£	lb.	£	£
1881	9,980	8,554	....	* 176,721	1,152,348	15,321	200,596
1882	13,782	22,910	....	* 143,601	622,263	9,087	175,598
1883	34,911	43,100	....	* 221,912	734,274	9,870	274,882
1884	13,309	12,321	....	* 161,477	621,007	8,948	182,746
1885	6,271	6,064	....	* 166,561	458,886	6,682	179,307
1886	4,852	4,671	....	* 77,756	263,637	3,112	85,539
1887	21,831	19,310	9,761,154	150,714	919,750	24,752	194,776
1888	52,262	44,537	4,528,269	69,481	809,507	16,028	130,046
1889	37,868	33,426	2,877,303	52,321	743,685	12,984	98,731
1890	72,304	71,534	4,655,523	74,329	638,137	13,477	159,340
1891	105,013	101,828	6,581,713	87,632	443,902	9,596	199,056
1892	223,074	169,425	8,620,747	105,922	786,057	8,342	283,689
1893	220,584	141,640	13,092,942	164,592	632,767	9,081	315,313
1894	339,404	193,760	16,382,577	206,054	934,083	22,289	422,103
1895	608,441	560,823	22,384,285	302,828	1,191,850	21,647	885,298
1896	642,566	343,680	16,351,936	218,292	1,288,946	37,961	599,933

* Including extract of meat.

During 1895 the shipments of frozen meat comprised 1,021,006 carcases of mutton and 88,719 quarters of beef; and during 1896, 1,372,373 carcases of mutton, and 16,286 quarters of beef.

INDUSTRIAL HISTORY.

OF the great industries now carried on in New South Wales, only wheat and maize farming, wool-growing, and coal-mining date from the beginning of settlement: some industries which manifested early promise have died out or fallen into neglect; others which now exist are of comparatively recent growth. Interesting as it is, therefore, to look back upon the conditions of industrial life which characterised the development of the colony in its early years, it must be remembered that those conditions have in many cases only an indirect bearing upon the commercial and social evolutions of present times. Nevertheless, the beginnings of industrial life in Australia, uneconomic as they undoubtedly were, are in various respects of great interest; and, as will presently appear, many important problems that agitated the public mind in days long anterior to the gold discoveries still await solution. In the following pages the industrial history of New South Wales is traced from the first days of settlement. In some respects it is a record of continuous progress, in others it is marked by features of an opposite character; but, speaking generally, there has been a systematic advance in the condition of the workers, especially of those who may be classed as wage-earners.

The industrial history of the colony is naturally divided into eight completed periods and the present period, which was entered upon in 1893; but, as may be inferred from the nature of the case, except in regard to that represented by the gold rush, no sharp line of division between one industrial period and another can be drawn. The opening and closing years of each period were:—

First Industrial Period, from 1788 to 1821
Second ,, ,, ,, 1821 ,, 1838
Third ,, ,, ,, 1838 ,, 1843
Fourth ,, ,, ,, 1843 ,, 1852
Fifth ,, ,, ,, 1852 ,, 1858
Sixth ,, ,, ,, 1859 ,, 1862
Seventh ,, ,, ,, 1863 ,, 1872
Eighth ,, ,, ,, 1872 ,, 1893
Ninth ,, ,, ,, 1893

It is in relation to these several periods that the economic progress of the colony is now discussed.

FIRST INDUSTRIAL PERIOD, 1788–1821.

The first period embraces the interval between the landing of Governor Phillip and the departure of Macquarie; that is to say, from 1788 to 1821. Intended, as it was, for a mere penal settlement, there was little room in the colony for the operation of industrial forces, and it was long before the authorities would recognise that the labourer had any rights beyond that to mere subsistence. This was perhaps inevitable in a place where the great majority of the labourers were emancipists; but the same ideas dominated the policy of the ruling powers long after the free population became an important factor in the industrial life of the colony.

Throughout the first industrial period, and, indeed, until a much later time, the spirit of the Government was that of paternal interference in every concern of social life. For the individual, especially the labourer, everything was regulated. The Governor fixed the price and determined the quality of the provisions consumed in the settlement; he made grants of land, and, in order to beautify his metropolis, required those who received grants within its boundaries to build substantial and handsome edifices thereon; he erected markets, and framed by-laws for their governance; he served out lands, cattle, and provisions to his subjects like a tradesman purveying general merchandise; he adjusted tolls, ferry dues, and wharfage fees, and gave an eye to municipal matters. Moreover, he gathered together the orphans in the colony, and supported them out of the proceeds of the duties and customs collected at the port. To the labourer he strove to ensure a fixed daily wage; from the labourer he sought to exact an unvarying amount as the price of his loaf or his pound of meat. This was not only possible, but seemed entirely at one with the ideas of the times, as the colonist, properly so called, was looked upon as an intruder whose presence, though distasteful to the authorities, could not altogether be avoided.

During the whole of the first period the Government was the main employer of labour; indeed, in the earliest years there was no other. Amongst individuals, the military officers were the first to seek labour, and to them were made over a number of prisoners, by whose aid a large area of country was cleared and cultivated. At first the Government supplied assigned labourers with clothing and food; but this was soon altered, and the expense of maintaining them was borne by their employers; indeed, this relief of the public stores was the chief consideration which induced the authorities to introduce the principle of assignment. As years went on, an increasing number of men whose sentences had expired became available for ordinary employment, and these, with the soldiers who preferred to remain in the colony, retired officers, civilians in the employ of the Government, and, lastly, the few free immigrants who had made their way to the settlement, formed the industrial population. For a considerable period the free population was not large, and there was no need to make special provision in the laws in regard thereto; but as the free element grew in importance, the Governor found it necessary to promulgate laws for the regulation of the relations between employer and the free employed.

The laws affecting labour were all conceived in the spirit of the primal curse, which designated work a punishment, the life of man a warfare, and his time here below a probation to be spent in weariness and sorrow. The General Orders issued during the first thirty years were sufficiently harsh and callous even when their provisions were framed with especial reference to the bond population, but they were scarcely more tender or considerate when they sought to regulate the conditions governing the operations of free labour. The hours of toil were established, and on no tender scale. A day's work for stacking and carrying grain was fixed at from 5 o'clock in the morning until 7 o'clock at night, less three hours for food and rest. The wages to be paid for various classes of labour were also arbitrarily determined. Should a labourer take or demand more than the regulated rates, or refuse to work for such wages, he was to be set in the stocks for two days and one night for the first offence, and for a second or continued refusal he was to undergo a penalty of three months' hard labour. No person was allowed to take work unless he could, if a freeman, produce his certificate, or, if a bondman, his ticket of leave. For the infringement of this regulation the penalty inflicted on the employer was a fine of £5, and 2s. 6d. for each day on which a free labourer was employed, with more than double this fine in the case of the employment of a bondman; and for paying more than the regulated rates he was liable to be imprisoned for ten days, in addition to the fine. The harbouring of a runaway apprentice involved a penalty of six months' hard labour to a freeman, and of one hundred lashes, with other punishment, if the offender were a prisoner. As the framer of the laws, the Governor had always before him the fact that the employer was often little better than the labourer he employed, both, as a rule, belonging to the emancipist class, and both, therefore, in view of their common origin, deserving of somewhat similar punishment for breaches of the labour regulations, unaffected by the accident of the possession of property by the one, and the want of it by the other.

The lot of the free labourer, even though he generally was an emancipated convict, was very severe. Long were his hours of labour; and his pay was by no means commensurate with his day's toil. Agricultural labourers were paid £4 for clearing and hoeing for corn an acre of ground; timber-getters, for sawing 100 feet, 7s., and for splitting 100 feet, 1s. 6d. to 2s. In 1796 the sum paid for making a pair of boots was 3s. 6d.; for a coat, 6s.; and for a gown, 5s.; carpenters received 5s., and field labourers, 3s. a day, without rations, and these were considered high prices. In 1814 a general order fixed the price for felling forest timber at 10s. per acre, and burning off at 25s. per acre; cutting down weeds and brush and burning off at 10s. per acre, and a splitter's daily remuneration at 2s. 6d. Three years later the price given for felling forest timber was reduced to 8s. per acre by an official regulation, burning off to £1 per acre, and other work in like proportion.

The annual expense of a convict to the Government was about £36 or £40 a year, including rations; and this the masters had to bear upon assignment of prison labour. In addition to the men wholly assigned to masters, there was another class of labour available. The prisoners who were not assigned were employed by the Government; but as their day closed at 3 o'clock, it was permissible for them to engage themselves for the remainder of the day to a private employer. A man was, therefore, free to work for himself after the hour mentioned, and all that he could earn "on his own hands" became his personal property. By general order, a prisoner's remuneration after hours was fixed at 1s. per day; but it is probable that skilled men, when they chose to work, found the inducement more profitable than was contemplated. In some respects, therefore, the lot of the prisoner was better than that of the free labourer, who was compelled to clothe and feed himself. In those early days of paucity of labour it was also customary to permit the soldiers to engage themselves during the harvest months, and a general order limited the remuneration to be paid to each man to 15s. currency per week, or 1 bushel of wheat per acre harvested, at the worker's option. A master transgressing this order was punished by fine; and in the event of any soldier demanding more than the regulation amount, he was summoned before the nearest magistrate to answer for his conduct.

This regulation of prices by law was strictly in accordance with the ideas of the times, the object aimed at being to ensure to settlers a supply of cheap labour, and incidentally to protect the labourer against fraud on the part of the master. Its principal effect was to prevent the worker from recovering in the Courts a greater price for his labour than was stipulated in the schedule, whereas the moment it became the interest of the employer to give better terms he would do so. The rates published by the Governor referred only to the various kinds of labour pertaining to agriculture and the allied pursuits, the wages of artificers, particularly of such as were most useful in a young community, being much higher. Transportation from England and Ireland was maintained during the whole of this period, and reached very large proportions about the year 1817, in response to Macquarie's demand for labour to carry on the agriculture of the country and to complete the numerous public works inaugurated during his term of office. Voluntary immigration almost entirely ceased with the increase in transportation; indeed, it was in many ways discouraged, the British Government going so far as to prohibit any person from proceeding to the colony who could not prove that he was possessed of sufficient property to enable him to establish himself on his arrival there.

Wages were paid partly in money and partly in kind, so that in studying the condition of industry some consideration must be given to the question of rations. These at first comprised an allowance of salt beef, maize, and split peas; but they were subject to considerable modification according to the condition of the stores, and especially during times of scarcity. Such measures were, fortunately, not often necessary; but the occurrence of periods of want, if not of absolute famine, had to be anticipated in a colony dependent for its support exclusively on importations, in days when ships visited the settlement only at long intervals, and prospects of profitable trading had not yet been made manifest. The fact that supplies were not sooner obtained from the soil of the country was probably the result of ignorance rather than of lethargy, for when knowledge was gained the difficulties in the way of obtaining breadstuffs disappeared.

Governor Macquarie continued the rates of remuneration authorised by his predecessors; but he directed that masters should pay their assigned servants a yearly sum of £10 for a man and £7 for a woman, including the value of slops allowed, or £7 for a man and £5 10s. for a woman when clothing was supplied. It is probable that these rates were determined by custom, as it is certain that most masters made allowances to their men at about the scale named; and that the rule was introduced to meet the cases of those who made no allowance or such as was insufficient to meet the wants of their assigned servants. The whole tendency of the regulations was to allow the average free labourer to earn 10s. a week in addition to rations, or 20s. a week where rations were not supplied. As already remarked, there is abundant contemporary testimony that, in spite of the severe penalties of the law, the legal rates were not adhered to, for the settlers ordinarily had to give more, the labourers refusing employment at the fixed rates.

Average prices of some few articles during the first twenty years of settlement are given below; and although labourers in receipt of 3s. a day would purchase few of the commodities mentioned at the open stores, they would probably, under the necessity of accepting the barter currency of the country, be compelled to take them in payment for their work, notwithstanding that by special regulation it was ordained that all wages were to be paid in sterling money or in wheat, at the option of the labourer.

	s.	d.		s.	d.
Maize, per bushel	10	0	Salt pork, per lb.	0	7
Wheat, per bushel	12	0	Rice, per lb.	0	3
Flour, per lb.	0	9	Potatoes, per lb.	0	3
Butter, per lb.	3	0	Moist sugar, per lb.	1	6
Cheese, per lb.	2	6	Soap, per lb.	1	0
Bacon, per lb.	1	9	Eggs, per dozen	2s. to 3s.	
Salt beef, per lb.	0	5			

These figures represent the average market rates, but prices were subject to great fluctuation; for example, wheat sold in 1817 at 25s. per bushel, while maize touched 16s. in some other years. Fresh meat was not plentiful, as the Governors were afraid of destroying the breeding stock, and Macquarie at one time actually attached the penalty of death to the destruction of the wild cattle found at the "Cowpastures" of Camden, although these cattle were afterwards killed, as it was feared that they might deteriorate the breed of stock. The settlers were at all times encouraged to keep pigs; and they must have grown vegetables, as American whalers, even in the earliest times, were accustomed to put into Port Jackson for a supply.

Trade and communication were restricted, not only with the view of ensuring the safe keeping of the convicts, but also in the commercial interests of Great Britain, and particularly of the East India Company. British seamen were forbidden to go on board a foreign vessel under the penalty of a £50 fine, and no British subject was permitted to enter into any contract with the subjects of a foreign power under pain of being sent away from the colony. Ships bringing cargoes from any part of the world, unless the goods had been manufactured in Great Britain, were obliged to pay a duty of 5 per cent. *ad valorem* on the amount of their invoices, and special enactments were from time to time levelled at the importation of merchandise "brought from the eastward of the Cape of Good Hope." The isolated condition of the settlement rendered colonists peculiarly liable to extortion on the part of traders, and the paternal Government therefore issued a general order forbidding traders to charge for retailing more than 20 per cent. advance on the importers' prices. In doubtful cases the retail price was required, if sued for, to be estimated by the Courts, at an advance of from 80 to 100 per cent. on the prime cost of English or Indian goods, or of 20 per cent. on the retail price in the exporting country.

Notes of hand for contracted debts were not recognisable as evidence unless the account of the articles sold, with the prices stated therein, was also produced. No note of hand could be drawn in copper coin or in Colonial currency, as such bills were, under an order of the Governor, to be liquidated in sterling money only, and the words "sterling money" had to be expressed in the body of the note or bill. The penalty for a breach of this regulation was a fine of £50. A subsequent regulation prohibited any person from receiving or paying any note of hand that had not the words "sterling money" therein expressed, under a penalty of double the amount of the note inflicted on both payer and receiver. Having regulated the relations of employer and employed, of buyer and seller, and the prices of labour and provisions, it was only fitting that the rate of interest should be determined. The Governor, therefore, prohibited the charging or acceptance of more than 8 per cent. interest on any bill, bond, or the like, under a penalty subject to the laws against usury. It is almost needless to say that this regulation was set at nought by the usurers without difficulty.

Prior to the year 1810 industries properly so called were non-existent, but Macquarie's term of office was marked by considerable commercial activity. Vessels were built and fitted out in the dockyards of Sydney, and public works were pushed on by the Governor with characteristic energy. In the year named the settlement possessed a brewery, a pottery, a tannery, a manufactory for tobacco pipes, and another for coarse cloths and woollens. The last named was established at Parramatta in order to utilise the services of the women prisoners, who were also employed in spinning linen out of the white flax of the country. Among articles of export to the East during these early years was sandalwood, for which there was an excellent market in China. The trade was in a certain sense contraband, as it involved a breach of the charter of the East India Company. Despite the fact that the port of Newcastle was a dangerous place for vessels to enter, the exportation of coal was attempted, and there appears to have been some trade carried on with Bengal in this mineral. Among other exports were beche-de-mer, whale oil, whale bone, seal skins, kangaroo skins, and lastly, what was destined to be the staple product of the colony—wool.

At the beginning of Macquarie's administration, he was recommended to make as many reforms as possible in the restrictions imposed upon commerce by his predecessors. Many of these restrictions were of a peculiarly harassing and impolitic nature, and were calculated to greatly discourage mercantile speculation. The most grievous was that practice, sanctioned by long usage, by which the Governor fixed the maximum prices to be paid for all imported merchandise—prices often too low to afford a fair profit to the trader. The entire cargo of a vessel was secured by the officers of the settlement, who alone had liberty to purchase, and articles of the first necessity were subsequently retailed by them to the settlers at greatly enhanced prices. Another regulation of a particularly oppressive character was the prohibition of any trading vessel from calling at the settlements at Van Diemen's Land for the purpose of disposing of goods, unless it had previously touched at Port Jackson. These and other abuses were in some cases restricted in their operation by Macquarie, and in others abolished. Soon after his arrival he did away with the practice of fixing a maximum price for grain and butcher's meat, but reverted to it a few years later.

The people, other than those of the labouring class, were, according to all contemporary history, in a flourishing condition, but this description must not be taken too literally, as it was that of men accustomed to the wretchedness of English or Irish peasant life, and what would be deemed fairly comfortable by them would nowadays be looked upon as far from tolerable. As regards the ordinary labourer, his material condition was in every respect wretched. He lived usually in a windowless hut, was clothed with canvas, and his food, though plentiful, was coarse and savourless. Of opportunities for amusement, culture, or self-education, he had none. Books were hardly to be obtained; morality was at its lowest ebb; and religion was a matter of authoritative regulation and enforced ceremonial obedience.

The method of exchange prior to Macquarie's arrival was mainly barter, varied to a slight extent by the circulation of foreign silver and of copper coin. The latter possessed twice its English value, and a general order was promulgated against both its import and its export. Later in the history of the colony, various expedients were resorted to by tradesmen, and shopkeepers' notes were circulated for sums varying from 3d. upwards, payable in Spanish dollars. The standard currency really consisted of paymaster's notes on the English Treasury, and these were negotiable with shippers in exchange for goods, a fact which assisted materially in the establishment of a trade monopoly by the officers of the civil and military departments.

The local values of the coins circulating in the settlement prior to the arrival of Governor Macquarie were as follow:—

	£	s.	d.		£	s.	d.
Guinea	1	2	0	Spanish dollar	0	5	0
Johanna	4	0	0	Rupee	0	2	6
Half-joe	2	0	0	Dutch guilder	0	2	0
Ducat	0	9	6	English shilling	0	1	1
Gold mohur	1	17	6	A copper coin of 1 oz.	0	0	2
Pagoda	0	8	0				

These currency values were, however, subject to considerable alteration, and there was, moreover, a great diversity in the nominal value set upon the Spanish dollar at one and the same period. Labourers rarely saw this coin; they were paid for their work in goods at monopoly values, and their remuneration consisted chiefly of rum, the price of which was determined by the importers, who saved themselves from competition by a mutual agreement as to prices, entered into in 1797, by which they were bound neither to underbuy nor undersell one another. The goods purchased by the officers from speculative shippers were paid for in wheat receipts, in paymaster's notes, and in Spanish dollars. It was to prevent the depletion of silver currency that Governor Macquarie in 1813 adopted the expedient of striking the centre out of the dollar, and using the "dump" to denominate a fourth of the value of the original coin, which, however, still passed current as a convenient denomination of the value of 5s. Private soldiers, who for many years were paid in pence, were unable to trade with the shippers, as copper coin was token money, which, if its export had been allowed—as it was not—would have had an actual value of half its current rating. The disability of the private soldier to buy in the open market was, however, altered on Governor Bligh's arrival, for he issued their pay in paymaster's bills similar to those received by the officers.

The currency continued very much in the unsatisfactory condition described until the growing business of the country allowed of the opening of a bank. The proposal to establish a local bank had been brushed aside in 1812 by Lord Liverpool, who informed the Governor that silver to the value of £10,000 would be sent from India, in order to tide the colony over its currency difficulties. This remittance, however, far from satisfied the needs of the community, and the Bank of New South Wales was opened for business on the 8th April, 1817. Its capital amounted to £20,000, divided into 200 shares. The bank was incorporated under a regular charter, and its affairs were controlled by a president and six directors. Its paper soon became the principal circulating medium of the colony, and business was done in the discounting of bills of short date, and in the advance of money on mortgage securities. Government payments for provisions purchased locally continued to be made with receipts from the Commissary, which, when taken into the office, were consolidated by bills on the King's Treasury. Captains of vessels purchasing provisions in the colony drew bills on the shipowners; while the commercial transactions of the inhabitants were conducted in currency dollars, copper, tradesmen's dockets, and the notes of the Bank of New South Wales. It is a peculiar fact, characteristic of the period, that a debt of more than £300 was regarded as one of honour, in consequence of the abuse of the privilege of appeal from the local courts to the King in Council.

When Major-General Lachlan Macquarie entered upon the government of the colony on the 1st January, 1810, the population numbered 10,454 persons. The settlement was bounded on the north, west, and south by the Blue Mountains, beyond which no one had then been able to penetrate, though several attempts to do so had been made, and it was the general opinion that farther than 60 miles away no land suitable for tillage was likely to be found. Along the sea the colony extended from Port Stephens to Jervis Bay, a distance of about 165 miles, and it was confidently stated that beyond these inlets settlement could not expand, the ground actually in cultivation amounting to rather more than 21,000 acres, together with 74,000 acres devoted to pasture. Macquarie's term of office was, however, brightened by the successful passage of Blaxland, Lawson, and Wentworth to the plains beyond the mountains, and the subsequent discoveries of new areas for settlement, which finally dissipated the idea, long entertained, that the colony would cease to exist should the support it received from the British Treasury be withdrawn.

Second Industrial Period, 1821-1838.

The second period of the industrial history of the colony begins with the assumption of office by Major-General Sir Thomas Brisbane at the the close of the year 1821, and includes the administration of Lieutenant-General Darling from the close of the year 1825 to that of 1831, and of Sir Richard Bourke from the close of the year 1831 to that of 1837. The area of the settlement was, during the whole of the period, continually being widened. In 1823 Allan Cunningham found a practicable route through Pandora's Pass to the rich Liverpool Plains. During the following year Lieutenant Miller formed at Moreton Bay an establishment which afterwards became the capital of Queensland. The first great journey of exploration by Major Mitchell to the north and north-west of New South Wales was entered upon in 1831. The journey proved rich in results, and added greatly to the knowledge of the colony's resources. The unlocking of territory had an emphatic influence on the development of the country's industries, as settlement followed close on the heels of the explorers, and tended to provoke interest in the minds of English speculators, a great deal of whose capital began to seek investment in station properties.

The labour legislation of this period did not depart to any appreciable extent from earlier ideas. Under the provisions of a regulation issued on the 17th July, 1828, servants neglecting or refusing to work, or absenting themselves from their employment, could be sent by a magistrate to the common gaol or the house of correction for a term not exceeding six or three months respectively, with forfeiture of all wages due; and servants spoiling, destroying, or losing property were obliged to pay double the value of the article injured or lost under a penalty of being committed to gaol for a term of from one to six months. On the other hand, a servant had remedy against an employer's ill-usage to to the extent of six months' wages and cancellation of the agreement of service. Any person who employed a servant previously retained was liable to a fine of from £5 to £20, half of which was paid to the person aggrieved and half to the Benevolent Society. Subsequent labour legislation was even more repressive in its character, as will be seen later on.

The comparative scarcity of free labour and the high price which it commanded show forcibly the unprofitable nature of bond labour which, though available for little above the cost of rations, was for some considerable time a drug in the market. This was especially the case during the period of extensive immigration which occurred under the administration of Sir Thomas Brisbane. The Government, therefore, was hard set to provide suitable employment for the prisoners left on its hands, the number of whom was constantly being augmented by the arrival of transports from the United Kingdom. To enable the Government to dispose of this labour, it was decreed that any free settler having an order from the English authorities for a grant of land could, by pledging himself to employ twenty bond servants, obtain a grant of 2,000 acres. There were, indeed, instances of settlers obtaining this quantity of land even without such an order, simply upon guaranteeing to relieve the Government of the expense of maintaining twenty men; and in 1826 the weekly sum of 3s. 6d., which had been, since December, 1821, payable to the Government as hire for an assigned artisan, was abolished. Assignment, it will be seen, was really a device adopted by the Government for the maintenance of the bond population with as little outlay as possible, and land was given away, not so much with the view of encouraging settlement, as of inducing holders to relieve the authorities of the cost of maintaining prisoners, for whom no profitable employment could be provided by the Government. The continual immigration of free settlers, most of whom obtained grants of land, with the right of receiving an assignment of men proportionate to their grant, rapidly used up the supply of assignable persons; the government farms, which had been established for the purpose of keeping the convicts at work, were abandoned, and the penal settlements were broken up and their occupants distributed among those who wanted labour, until in Governor Darling's time the opposite condition was reached, and it was found impossible to satisfy the demand for assigned servants. The first result of the extended system of assignment of labourers to private employers was that every able-bodied man of orderly conduct was in specific employment, and the colony was left without any reserve of labour which could be called upon in an emergency, so that in harvest and shearing times there was occasionally a great scarcity of men. It was this need of hands on emergent occasions that gave rise to the scheme of assisted immigration, which began to take effect in 1832.

The whole of the social, economic, and political literature of this period was constantly insisting upon the growing disproportion between the proprietary class in the colony, particularly capitalists who had invested in pastoral pursuits, and the labouring class, whose assistance was absolutely necessary in the effort to realise returns; and inducements of every description were held out to the agricultural peasantry of the United Kingdom to emigrate to the southern promised land. The reports of the immigration committees are particulary interesting, as are also the schemes, more or less impracticable, advanced by philanthropic pamphleteers for the colonisation of the country. The desire to procure cheap labour was not the only influence at work in the promotion of immigration; there was also an earnest wish on the part of some to secure population of desirable types in order to develop the resources of the country, and on the part of others to afford relief to the distressed peasantry of the United Kingdom. Judging by a report of a committee of immigrant mechanics, blacksmiths, carpenters, caulkers, joiners, stonemasons, stonecutters, and shoemakers easily found employment; while for all kinds of field-labourers, bush hands, dairy hands, shepherds, and shearers, the demand was very strong.

The introduction of a system of assisted immigration marked a vast change in the ideas of the governing powers since the departure of Governor Macquarie. Under his regime, not only was no encouragement offered to intending emigrants from England, but they were positively discouraged. This change of policy was due to the expanding effect that the opening up of new territory had on men's minds. So long as the colony was shut in by the barrier of the Blue Mountains so long was it possible to keep it mainly a penal settlement; but with the discovery of the western plains all hope of doing this completely vanished. As the expense of a passage from England or Ireland rendered it difficult for mechanics to make their way to the colony, the practice of paying a bounty for immigrants of a certain class was introduced. However, the number of mechanics brought out does not seem to have been large. The bounty was probably of most advantage to persons already in the colony who desired to bring out their women folk and children. There was, however, as already mentioned, a fair influx of non-bounty immigrants; but it is not likely that these included many mechanics or labourers. They were principally enterprising men of small means, and professional men anxious to practise in the colony, or failing that, to turn their hand to trade or squatting.

Lord Goderich, Secretary of State for the Colonies, being impressed about this time, 1831, with the great disproportion existing between the sexes, and desirous of remedying this state of things by the introduction of a number of unmarried female immigrants, recommended the setting aside of a portion of the revenue arising from the sale of Crown lands as a fund from which advances might be made, by way of loan, to assist in paying the expenses of the passage of desirable persons. From this time forward it became customary to regard the revenue derived from the sale of Crown lands as forming, not a part of the income of the colony, but a reserve available for the purpose of meeting the annual expense of bringing to the colony immigrant labour, of which, for long years, it was so sorely in need. In 1831 it was estimated that the revenue accruing from land sales during the ensuing year would be £10,000, and the appropriation of this amount towards the encouragement of the immigration of unmarried females was sanctioned by the British authorities, with, however, a reservation to the effect that no other appropriation of capital derived from the sales of land in New South Wales should be made until the expense of £10,000 should be liquidated. The sum contributed to each female immigrant was £8—half the estimated cost of the passage out, the other half being made up by the immigrant herself. In the case of the funds proving deficient, a preference was to be given to females immigrating in company with their families over such as were unattached. It was subsequently recommended that a limited number of mechanics should also be assisted with advances to enable them to emigrate; and agricultural labourers were afterwards included among those to whom it was considered advisable to advance money by way of loan as an instalment of the passage-money to the colony. The system, however, underwent certain changes from time to time, according to the amount of the land fund, the need for labour, and the enterprise of private settlers. In 1835 bounties were offered towards defraying the expense of the passage of immigrants, to such settlers as would charge themselves with their introduction. These were £30 for a married mechanic or farm servant and his wife, the age of neither of whom exceeded 30 years; and £5 for each of their children over twelve months of age. For an unmarried female between 15 and 30 years of age the sum of £15 was allowed, and £10 for an unmarried mechanic or male farm-servant between 18 and 25 years of age. Subsequently the system of assisted immigration was developed on other lines; but the principle of introducing rural labourers and their families, single women, and skilled artisans was steadily maintained throughout the whole of this period after its first adoption.

Under the regulations by which prisoners were assigned, employers were forbidden to give their servants regular wages; but it is well known that there were employers of assigned labourers who paid them wages, and that printers, for instance, received as much as a guinea and even more per week on account of their masters being under the impression that night-work could not otherwise be enforced. Butchers, blacksmiths, and others received 5s. per week, besides food and clothing; the printers, however, maintained themselves. The wages paid to free labour in the first years of Brisbane's administration was, for artisans and mechanics, from 5s. to 7s. per day without rations; and for agricultural labourers in 1828 from £20 to £30 per annum with rations, and in some cases even £50. In the towns especially, artisans, such as carpenters, could at this time earn 50s. per week; but wheelwrights and blacksmiths received about 36s. per week, and unskilled labourers from 3s. to 5s. per day. Quarrymen appear to have been in special demand, and their labour has been recorded as worth 10s., and even 15s. and 20s. per day, though the last-mentioned amounts must have been given only in special cases. Compositors could obtain from 35s. to 50s. a week; but clerks and professional men had few opportunities to obtain employment. In 1830, when the population had increased to 46,300, the services of artisans of various classes appear to have been greatly wanted, and for some years afterwards every description of labour was in brisk demand, although the remuneration of skilled mechanics remained unaltered. The following statement shows the average wages paid during the period, and includes the daily wage given to labourers not receiving board and lodging. The quotation of daily rates, however, is apt to be misleading, as few mechanics secured, even if they sought it, employment during the whole year. It is probable that common labourers did not earn more than from 4s. to 5s. per week with rations and lodgings, and mechanics of the highest qualifications did not average more than £2 per week the year round. Where no quotations are given in this and following tables no reliable information is available.

Trade or Calling.	1823.		1833.		1835.		1836.		1838.	
Per day, without board and lodging.										
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Blacksmith	6	0	7	0	7	0	6	8	7	0
Bricklayer	6	0	5	0	6	6	7	3	6	6
Brickmaker, per 1,000	6	0	9	0	9	0	5	3	9	0
Cabinet-maker	6	0	6	0	6	0	6	4	6	0
Carpenter	6	0	6	0	6	9	6	4	6	6
Caulker	7	6	7	6	8	6	6	9	......	
Cooper	6	0	6	0	7	6	6	6	7	6
Farrier	6	6	6	6	6	6	6	6	6	6
Ironfounder	6	3	6	3	6	3	6	3	6	3
Labourer	3	0	3	0	4	0	4	6	4	6
Millwright	6	6	6	6	7	0	7	3	7	3
Painter	......		5	0	......		5	4	......	
Plasterer	5	6	5	6	7	0	6	6	6	3
Quarryman	......		5	6	5	0	5	6	4	6
Shoemaker	6	0	6	0	6	0	5	10	6	0
Stonemason	6	0	6	0	6	8	7	6	6	8
Tailor	......		5	6	6	0	......		6	6
Wheelwright	5	6	5	6	6	0	6	0	5	6
Per annum, with board and lodging.										
Agricultural labourer	22/10/-		22/10/-		22/10/-		22/10/-		25/-/-	
Dairywoman	10/-/-		12/-/-		12/10/-		12/10/-		12/10/-	

The wages of a shepherd during this period of the colony's history appear to have been from £20 to £30 per annum, and of a shepherd's watchman, £20 per annum. A ploughman's remuneration for six months' work was quoted in 1835 at £20. Piecework was paid for as follows:—Picking weeds off fallow ground, 2s. per acre; reaping, 8s. per acre; carrying, stacking, and thatching, 10s. per acre; and threshing grain from the ear, 6d. per bushel. The Select Committee of the Legislative Council, which sat in 1835, reported, after taking much evidence, that good mechanics could earn from 30s. to 40s. per week, and farm labourers from 7s. 6d. to 10s. per week with rations. One of the witnesses examined by the Committee stated that he paid shipwrights, coopers, and blacksmiths from 7s. to 8s., and sailmakers 6s. a day, adding, "We consider these wages too high, but find it impracticable to reduce them, as rather than take less the men will go out of work; and they can afford to do so, because the wages of three or four days will suffice to maintain them for a week." Another witness said he paid millwrights, blacksmiths, and engine-drivers 42s. per week, and that a good carpenter could earn £3 3s., and a stonemason from £3 to £4 per week. All the witnesses were agreed as to the difficulty of inducing labourers to move into the country districts—a difficulty that told so severely against the agricultural and pastoral industries that in 1838 another Select Committee was appointed to consider the questions of labour and immigration. In contemporary evidence, however, the allusions to the difficulty of obtaining good men and to the high wages enjoyed by mechanics should be accepted with some caution. In a population numbering under 98,000 the demand for good men must have been limited, while the presence of bond labour and the necessity of finding employment for it may be expected to have interfered very seriously with the regularity of the work to be obtained by free men. There was probably in the country districts a demand for skilled labourers in excess of the supply; but a glance at the foregoing table will show that the wages such men could earn did not offer an inducement at all commensurate with the discomforts and dangers which they expected to encounter.

Prior to the year 1827 tea and sugar were almost invariably included as part of the rations issued to servants; but owing to the straitened circumstances of the settlers, the result of unfavourable seasons, and a fall in the price of live stock, the place of these was taken by milk. The weekly ration, as fixed by Government, was as follows:—12 lb. wheat or 9 lb. seconds flour, or in lieu thereof, at the discretion of the master, 3½ lb. maize meal and 9 lb. wheat or 7 lb. seconds flour; 7 lb. beef or mutton, or 4½ lb. salt pork; 2 oz. salt, and 2 oz. soap. Any articles beyond these which the master might supply were to be considered as indulgencies, which he was at liberty to discontinue whenever he might think proper. In 1828 the crop of the colony was found insufficient for its needs. Grain had consequently to be imported, and a scarcity of breadstuffs was apprehended. The Governor, therefore, published a general order in which the rations issued to labourers in the public service were reduced to 7 lb. of bread; and all persons and settlers having in their employ assigned servants were earnestly recommended to adopt a similar scale, and to make up for the reduction by increasing the ration of meat.

The prices of provisions fluctuated considerably, and especially was this the case in reference to such as had to be imported. Locally-produced provisions of all kinds were, however, generally plentiful at moderate prices, the ruling rates in 1823-24 being as follow :—

	s.	d.		s.	d.		s.	d.
Butter, per lb.	2	3	to	2	10	Fowls, per pair	3	4
Cheese, per lb.	1	3				Wheat, per bushel	8	0
Fresh pork, per lb.	0	6	,,	0	8	Maize, per bushel	6	0
Fresh beef, per lb.	0	6	,,	0	8	Barley, per bushel	5	0
Mutton, per lb.	0	6	,,	0	8	Potatoes, per cwt.	8	0
Bread, per lb.	0	3½				Eggs, per dozen	1	10

At this time only one market a week was held in Sydney; and in Parramatta markets were held only twice or thrice a year. The great drought which began in 1827 sent corn up to a very high figure, and forced settlers to dispose of their live stock in order to buy grain for the support of their household and establishments. All provisions, with the exception of meat, which became very cheap indeed, rose in price, and the crisis was accentuated by the collapse of the sheep and cattle speculation inaugurated a few years previously, about the time of the formation of the Australian Agricultural Company. The price of wheat from month to month ranged from 7s. to 14s. 9d. per bushel; of maize, from 7s. to 10s. 6d. per bushel; of barley, from 4s. to 9s. 6d. per bushel; of hay, from £10 to £17 per ton; and of straw, from 20s. to 35s. per ton. The drought appears to have been almost general, and, in the words of a writer of the time, it had "blasted the whole country"; while the future prospect of subsistence diet was confined to a little water and an abundant supply of meat, which was being retailed at 1¾d. a lb. Fortunately for the colonists of New South Wales, the proximity of Van Diemen's Land, where an exceptionally good crop had just been gathered in, prevented many of the dire effects that must have followed in the wake of long-continued famine prices for grain. Pork was quoted at 8d. per lb., and all vegetables were advanced to twice their ordinary price, while they had deteriorated by half their usual quality. The Sydney market, in December, 1828, supplied the following quotations :—

	s.	d.		s.	d.
Wheat, per bushel	9	0	Veal, per lb.	0	7
Maize, per bushel	11	0	Fowls, per pair	6	0
Flour, per 100 lb.	26	0	Ducks, per pair	9	0
Eggs, per dozen	3	0	Geese, each	10	0
Butter, per lb.	2	6	Turkeys, each	12	0
Bread, per 2 lb.	0	6½	Potatoes, per 112 lb.	25	0
Beef, per lb.	0	4	Barley, per bushel	5	6
Mutton, per lb.	0	5	Oats, per bushel	5	6
Pork, per lb.	0	8	Onions, per lb.	0	3

The Governor, true to the traditions of his office, sought to meet the rigours of a season of drought by a general order, dated the 30th September, 1828, in which, with the view of enabling the bakers the better to meet the demands of the public, and of keeping down the price of bread as far as the means of the Government would permit, he signified his intention, until the ensuing crop should be available, of putting up t auction sale a portion of the wheat in the public stores on each successive market day, in lots of 24 bushels each, for the accommodation of the small dealers. These sales were to be conducted for ready money, and the profit, if any, after defraying the cost of the wheat and the charges incurred by the Government in procuring it, was to be appropriated to a fund for the supply to poor settlers of seed-maize. Fat cattle at this time were quoted at £3 per head, wethers and male lambs at 15s. each, female lambs at £2, and ewes at £2 and £3. During 1834 wheat fell as low as 3s. per bushel, and rose in the latter part of the year as high as 14s. Prices were, however, subject to much fluctuation, particularly those for articles which were not produced in the country. The long absence of a ship from China with tea, or from the Isle of France with sugar, sometimes produced a rise in the price of these articles of 100 to 200 per cent., to be followed on the arrival of the vessel by a relapse to ordinary prices. In 1832 bread was sold at 7d. to 8d. per 2-lb loaf, and flour at 14s. to 15s. per 100 lb. In 1835 beef was 2d. per lb., sugar 2½d., and tea 2s. per lb. In times of flood or drought flour has been known to rise from £15 to £50 per ton; and wheat from Van Diemen's Land fetched as much as 20s. per bushel in 1828. In 1834 the price of flour was 33s. per 100 lb., and the reputed 2-lb. loaf sold at 8d.; maize was 3s. 6d. per bushel; beef, by the quarter, 1½d. per lb.; mutton, by the carcase, 2½d. per lb.; pork and veal, 3½d.; salt beef, 2¾d.; bacon, 1s. 2d.; potatoes, from 10s. to 12s. per cwt.; tobacco, 6d. per lb.; mould candles, 8d.; "dips," 5d.; soap, 4d.; salt pork, 5d.; fresh butter, 1s. 10d.; salt butter, 1s. 4d.; cheese, 6d.; the 4lb. loaf, 1s. 2d.; fowls, 2s. per pair; ducks, 3s. 6d. per pair; geese and turkeys, 4s. each; and eggs, 1s. 3d. per dozen. Ration bread was frequently made from the meal of barley, rye, oats, buck-wheat, Indian corn, peas, beans, rice, and potatoes; and the different classes of bread were distinguished as "Standard wheaten bread," "Household," and "Mixed."

Rentals in those days were high. In 1834 houses in Sydney, built on leases of ten years, and the whole expense of erecting which, including the lease-rent, did not exceed £200 each, were taken as soon as they were completed at a weekly rental of 25s. In 1835 the rent of a house of two rooms in Sydney was from 5s. to 10s. per week, and a cottage of two or three rooms commanded 14s. per week rental. Few houses were supplied with water, so that an additional outlay was involved to meet this necessity; yet single men could obtain board and lodging for 10s. 6d. per week, though the amount generally varied between 12s. and 14s., if washing were included. Boots, shoes, coats, hats, and other articles of clothing appear to have been exceedingly dear. The principal articles of manufacture were coarse woollen cloths, cabbage-tree hats, salt, candles, leather, boots, and drain-pipes and other earthenware. The export of wool rose very rapidly. Excluding the produce of Tasmania, in 1821 it was 175,400 lb.; in 1825, 324,000 lb.; and in 1830, 2,000,000 lb. The surplus produce of the coal-mines at Newcastle, after the wants of the Government establishments had been supplied, were authorised by a Government order, dated the 9th May, 1822, to be sold at the pits to those wishing to purchase at a fixed rate of 10s. 6d. per ton, and the proceeds of such sales were collected at the Customs as the cargoes came to be discharged in Sydney. From the commencement of the year 1828 the revenue from these sales was directed to be paid over to the Commissariat Department as a contribution towards the maintenance of the bond population. The annual production of coal was usually about 4,000 tons. The mines were afterwards transferred to the Australian Agricultural Company.

During this period repeated efforts were made to improve the condition of the currency and reduce it to a fixed standard of sterling value and denomination. Up to 1826 the circulating media were mainly Spanish dollars and notes of the Bank of New South Wales expressed in Spanish dollars. A Government order, dated the 5th February, 1823, directed that the public accounts should be kept in dollars and cents, and this order remained in force up to the end of the year 1825. It continued, however, to be the almost universal practice in the colony to express all rates and sums in the first instance under British denominations, thereby rendering it necessary, before any sum could be brought to account as prescribed in the general order, to calculate the amount in dollars, and the inconvenience of the operation was further increased by the diversity in the nominal value set upon the dollar. In ordinary business transactions this coin was rated at 5s.; in payment of the salaries of civil officers, at 4s., and from the 1st July, 1825, at 4s. 4d.; in the issue of pay to the military, at 4s. 8d.; and in the collection of Colonial dues, at the highest rate for which it was received by the latest public tenders made to the Commissariat. It is readily conceivable that so anomalous a system must have been attended with great inconvenience. It was determined, therefore, by the Lords Commissioners of the King's Treasury, to introduce into the several colonies a uniform currency of sterling denomination, and in furtherance of such determination British silver and copper money was sent to the Commissariat Department in the year 1826 to the amount of £50,200; in the following year to the amount of £13,210; and in 1829 to the amount of £20,000; giving for the years mentioned a total sum of £83,410. These remittances, with the sums introduced by private individuals, which were estimated at from £40,000 to £50,000, furnished the settlement with a circulating medium of British coin amounting to £130,000. Nevertheless, up to the year 1829 transactions between individuals continued to be regulated partly in British coinage or in Spanish dollars at the declared sterling value of 4s. 4d. each, and partly with reference to the former rate of the dollar, viz., 5s.; or, to employ the common appellation by which these two standards were distinguished, partly in "sterling," and partly in "currency." The tradesman's notes of this period were almost invariably expressed in "currency" denomination, and the rewards offered for various services in the columns of the contemporary press nominated amounts in Spanish dollars. After the arrival of the new coinage, as shown by contemporary evidence, the Colonial Treasury was for some time obliged to issue the dollar at its declared sterling value of 4s. 4d.

In connection with the question of the country's currency it is interesting to note a general order, dated the 22nd September, 1828, in which the Governor announced his willingness to receive the ring dollars and dumps issued under the proclamation of Macquarie in 1813, and to grant for them bills at the same rate as for British coin on the Lords Commissioners of the King's Treasury, or to give in exchange for them British coin to the value of 3s. 3d. sterling for the ring, and 1s. 1d. for the dump; but in a general order issued in 1829, sterling value of "currency" issued to troops was affixed to the French 5-franc piece, the 2-franc piece, and the franc; to the Sicilian dollar, or scudo, the piece-of-forty, and the piece-of-twenty; to the Spanish dollar; to the United States dollar; and to the Calcutta, Bombay, and Surat rupee. Indeed, the elimination of foreign currency seems to have been a very slow process.

The period under notice was marked by considerable mercantile and speculative activity. In 1826 the Bank of Australia was instituted, and in 1832 the Savings Bank was established by the Governor in Council, the latter institution allowing interest on deposits at the rate of 5 per cent. per annum, with a division among the depositors of the surplus interest at the end of each year. The same epoch is famous also for the establishment of the Australian Agricultural Company, whose immediate influence upon the development of the country was not altogether of a favourable nature. The Australian Marine Assurance Company was established in 1831.

Up to the time of the advent of Sir Richard Bourke, the Governors had been empowered to make grants of Crown lands to private individuals, and charges were frequently insinuated of undue favouritism, to call it by no harsher word; and a retiring Governor was severely reprimanded for making a grant to his successor, who, on assuming the Government, made a similar grant to his predecessor. But in 1831 orders from the Colonial office directed the introduction of a new system with regard to the disposal of the colony's Crown lands. All free grants were to be confined to such as were made to schools, churches, and other public institutions, and the only other method of alienation permitted was to be by sale at public auction, under a form of restricted competition. Prior to the limitation of the system of making grants of land, immigrants were entitled to receive from the Governor 1 square mile of territory for every £500 of capital immediately available for its cultivation, to the extent of 4 square miles or 2,560 acres—the limit within which the Governor was authorised to make grants to one individual. Persons possessed of a capital less than £250, clear of all expenses of reaching the colony, were for a long time not considered as eligible to receive grants of land; but a subsequent regulation extended the privilege to them, as well as to natives of the colony who were of good character, the grant in such cases comprising from 50 to 100 acres in any of the districts which had been set apart for the settlement of small farmers. The condition of tenure was actual residence upon the land granted. The regulations under which the grants were made were quashed by Viscount Goderich, afterwards Lord Ripon, who set upon all unalienated land in the colony a minimum price of 5s. per acre. With the institution of this agrarian law, the industrial history of New South Wales entered upon a new phase of development.

THIRD INDUSTRIAL PERIOD, 1838–1843.

The third period in the industrial history of the colony may be said to have opened under favourable auspices. Immigration was encouraged by votes of public money, and, as a consequence, the population within five years increased by nearly 80 per cent., or at the rate of more than 15,000 a year. Settlement in the southern portions was gradually spreading, the discoveries made by Sir Thomas Mitchell and others having thrown open to occupation large areas of country, which gave to trade of all kinds a powerful impetus—an impetus which was accelerated by the amendment of the land laws. At the beginning of this period all available Crown lands could be rented under lease for the term of one year. The lease was put up to public auction at a rental of 20s. for each section of 1 square mile. In the event of the land being sold, the lessee was required to surrender it on one month's notice. Should the land not be sold, the lease was again put up to auction, whether the occupant made application to that effect or not; but should it not be re-let the fact was notified accordingly. The minimum price of land was raised by Act of Parliament in 1842 to 20s. an acre, although, of course, it sometimes fetched very high prices in select localities.

This raising of the minimum price of Crown lands immediately operated as a check upon the land sales, the revenue derived from this source rapidly dwindling away almost to nothing. In 1839 the sale of Crown lands realised £152,962; in 1840, £316,626; in 1841, £90,387; in 1842, £14,574; in 1843, £11,297; and in 1844, £7,402. It was an understood thing that the money received from the sale of the Crown lands was to be devoted exclusively to the promotion of immigration and the replenishment of the colony's labour supply, without which cultivation could not be extended in an equal ratio with the acquisition of estates by capitalists and settlers; but when the land fund was exhausted there was necessarily an end to bounty-fed immigration, and Sir George Gipps, in his anxiety to raise money for this purpose, embroiled himself with the squatters by imposing upon them special agrarian legislation, which they considered particularly grievous and unjust. The previous Governor, Sir Richard Bourke, had treated the natural pasturage situated outside the "boundaries of location" as commonage, equally available to all desirous of making use of it for depasturing their flocks and herds, provided that it was not wanted by permanent settlers, and therefore he demanded from squatters making use of it only a yearly license fee of £10, to which was subsequently added, at the instance of these pastoral licensees, a small imposition of so much a head on all horses, sheep, and cattle, in order to provide for the establishment and support of a border police for service in the squatting districts. Under the Gipps regime, as the revenue from the sale of land had failed, it was thought that the squatters could be compelled to contribute to it by purchasing land at the minimum price, and thus to supply funds for immigration purposes. This measure of the Governor was met by a counter effort on the part of the squatters, who laboured, and that successfully, to obtain regular leases of their squattages, with fixity of tenure and pre-emptive rights. A war of interests was thus created between the pastoral and agricultural industries which took years of agitation and much legislation to allay.

The practice of assigning prisoners to selectors ceased about the beginning of this period. The dispatch directing Governor Bourke to discontinue the system was dated 26th May, 1837, and the system came to an end in 1838. This event made the introduction of free labourers almost imperative, and led to the activity in immigration already referred to. A Master and Servant's Act, passed during the administration of Sir George Gipps, throws considerable light upon the conditions of labour during the period. This measure provided that artificers, manufacturers, journeymen, workmen, shepherds, labourers, and other servants, who should refuse to serve the time of their engagements or return or leave any work uncompleted, or who should absent themselves from or refuse to work, might, upon the oath of one or more credible persons, be brought before two justices of the peace, and upon conviction, in cases where the amount due for work done did not exceed £30, be adjudged to forfeit all or part of the wages due at the time proceedings were instituted, and to pay a sum not exceeding twice the amount of any damage incurred through neglect, absence, or other cause. In default of payment, the offender was committed to the common gaol, without bail or mainprize, for any time not exceeding three calendar months, unless the amount in which he was mulct was sooner paid. Masters against whom judgment had been given for recovery of wages could, upon non-payment, be moved against by distress and sale, and for want of sufficient distress could be sent to gaol for a term not exceeding three calendar months if the claim was not sooner satisfied. Servants obtaining advances and afterwards absconding or refusing to perform the work for which they had been engaged, could also be sent to gaol for a term not exceeding three calendar months, or to the house of correction, with hard labour, for the same term; and in all these proceedings against workmen there was no need to prove the signatures of witnesses to indentures of service. Persons employing servants whose engagements with other persons had not expired were fined not more than £20, nor less than £5; and the servant who could be proved to have spoiled, destroyed, or lost property was adjudged to pay double the value of such property, and also, if a male, committed to gaol for a term not exceeding three calendar months. Female offenders were exempt from being sent to gaol under the provisions of the Act. Such were the restraints imposed upon both masters and workmen, and such the restrictive legislation, enforced with fines and imprisonment with hard labour, which the wisdom of our forefathers evolved to stimulate the industries of the young colony, and to ensure its development.

An interesting relic of the period is preserved in the form of a labour agreement. So many disputes arose between master and man respecting wages and conditions of service that it became customary for employers and workmen to have written agreements. The following is a copy of one such document:—"Prosser's Plains, December, 1842. The undersigned, John Gudge, agrees to serve Mr. Nathaniel Olding as a farm servant on such work as may be required, to assist as gardener, or any other work, to work as a shoemaker for the family and establishment when required, for one year, for the sum of £25. One month's notice to be given. The weekly rations to consist of 12 lb. flour, or 14 lb. bread; 9 lb. mutton or beef, or 6 lb. pork; 1½ lb. sugar; and 2 oz. tea. All other things which John Gudge may require are to be charged against him as part payment of his wages."

When the State was compelled, by reason of lack of money, to leave the settlers to their own efforts in regard to procuring labour, various schemes were propounded by which a continuous and cheap supply might be obtained, and some of these were carried into effect. Mr. Benjamin Boyd introduced several shipments of natives from Tanna and the New Hebrides, and employed them as shepherds; but the experiment proved a failure, as the islanders would not apply themselves to the work. Moreover, the local legislature interfered, and interdicted, by enactments, what it regarded in the light of an attempt to establish a new slave trade. The attention of the colonists was, however, chiefly directed to the possibility of procuring labour from the East Indies or from China, but immigration from such sources was deemed inadvisable or unattainable. An agitation on the part of employers anxious to engage cheap labour from India was begun, only to be quenched shortly afterwards by a wave of counter-agitation on the part of the free labourers of the colony. The largest public meeting ever held in New South Wales up to that time was convened to protest against the introduction of hill coolies from India. In the city of Sydney more than 4,500 signatures were obtained to a petition on this subject for presentation to the Queen; and Lord Stanley, Secretary of State for the Colonies, expressed, under date the 29th September, 1843, his disapproval of the project, and refused to it the sanction of the Imperial Government.

The Committee on Immigration, in its report to Sir George Gipps, stated that in consequence of the great dearth of labour, particularly of pastoral labour, the flock-masters had been driven to exhaust every expedient to increase the service derivable from the number of men then employed. Three or four times the ordinary and proper tale of sheep had, it was reported, been placed under the charge of each individual shepherd, and many squatters had been forced to abandon the rearing of lambs in consequence of being unable to provide for the care of augmented flocks. The demand for labour of a pastoral character appears to have been continuous; and fresh employers were ever arriving and adding their demands for labour to those of the existing settlers.

Appended is an interesting return of the immigrants who arrived in New South Wales during the year 1840, and of the amounts at which they were engaged :—

Males, per annum, with rations.

		£			£
1,032	Agricultural labourers	25	54	Grooms and coachmen	30
16	Bakers	50	6	Millers	40
10	Butchers	40	35	Ploughmen	26
2	Cooks	35	1	Seaman	48
61	Domestic servants	30	108	Shepherds	27
18	Farm overseers	40	2	Shopkeepers	40
62	Gardeners	40	8	Stockmen	27

Males, per day, without rations.

		s.	d.			s.	d.
59	Blacksmiths	7	0	1	Nailer	3	6
67	Boot and shoe makers	6	8	24	Painters and glaziers	6	0
1	Brazier	6	8	4	Plasterers	6	0
9	Bricklayers	7	0	1	Plumber	6	0
4	Brickmakers	7	0	11	Printers	8	0
19	Cabinet-makers	7	6	6	Quarrymen	5	0
83	Carpenters and joiners	8	0	13	Saddle and harness makers	6	0
9	Coopers	6	8	13	Sawyers	10	0
7	Curriers	6	0	3	Shipwrights	10	0
7	Engineers	10	0	41	Tailors	7	0
1	French-polisher	6	8	9	Tinsmiths	6	0
30	Masons	7	0	9	Turners	7	0
22	Mill and wheelwrights	6	8	2	Upholsterers	7	0
2	Miners	5	0	5	Watchmakers	8	6

Females, per annum, with rations.

		£			£
19	Bonnet-makers	14	17	Kitchen-maids	14
26	Cooks	20	12	Ladies' maids	20
97	Dressmakers	18	2	Laundresses	18
313	Farm servants	14	14	Milliners	20
7	General servants	16	35	Nursery-governesses	20
517	Housemaids	15	138	Nurse-maids	10

In Sydney and other towns it was customary to hire workmen on wages only, lodgings and rations being their own concern; but in the country, not only shepherds and pastoral workers generally, but blacksmiths and wheelwrights and other artisans were lodged and rationed according to a regular scale. At the beginning of the period, carpenters, smiths, masons, shipwrights, wheelwrights, cabinet-makers, plumbers and glaziers, harness makers and shoemakers could earn from 5s. to 8s. per day; working overseers, gardeners, and woolsorters varying rates from £30 to £70 per annum, together with lodging and rations; ploughmen, stockmen, shepherds, and brickmakers, from £15 to £35 with lodging and rations; and labourers from £15 to £25 with lodging and rations, the rates of wages being regulated according to the capabilities of the workmen.

In 1839 there was a great increase in wages, an ordinary mechanic being able to earn from 8s. to 12s. per day, and a farm labourer from £20 to £30, with, of course, a hut to live in and his rations; but so far as artisans' wages were concerned their increase was coincident with a rise in the price of provisions. In the year 1840 contemporary opinion pronounces wages as being very high; shepherds, for instance, receiving from £30 to £40 a year and rations; labourers in Sydney sometimes as much as 7s. and 8s. per day; and female domestic servants £20 a year, with board and lodging. These were considerable advances on the wages of the old assignment times, when free labour was thought to be amply remunerated at £14 and £16 per year and rations. Wages fell in 1841, when mechanics could be hired at 7s. 6d. or 8s. per day, farm servants at £22 per year, and domestics at £12. In 1843 the wages of station servants, shepherds, hut-keepers, and others declined to £18 per annum, and even less. Sheep-shearing was paid for at the rate of 15s. per 100, and sheep-washing at 3s. per 100. The rations served out were valued at £12 per annum, and comprised flour, meat, tea, and sugar.

In 1838 and 1839 the crops failed, and in 1840 they partially failed; and during these three years, also, the price of wool declined from 2s. to 1s. per lb. For provisions in 1838, contemporary quotations were as follow:—Potatoes, from 7s. to 15s. per cwt.; bread, 4½d. per 2-lb. loaf; beef and mutton, from 4d. to 5d. per lb.; cabbages, from 2d. to 4d. each; flour, best, 17s. per cwt., and seconds, 13s. per cwt. The year 1839 was, however, a year of drought and scarcity, and prices rapidly rose to the position already indicated. Flour ranged from £50 to £80 per ton; cattle from £8 to £10 per head; and sheep from 30s. to £2 per head. Clean wheat was quoted at £1 2s. 6d. per bushel; hay at £18 per ton; and fresh butter at 3s. to 3s. 6d. per lb. Bread was sold at 7d. per 2-lb. loaf, with a subsequent rise to 8d.; potatoes from 1d. to 2½d. per lb.; meat, from 3d. to 5d. per lb.; and the prices of other articles in common use were proportionate. The colony was at this time greatly dependent upon Van Diemen's Land for supplies of wheat and flour. Much of the grain-growing land in New South

Wales, especially that adjacent to Sydney, had gone out of cultivation through exhaustion, and the increased interest taken in the raising of stock superseded agriculture to a considerable extent, and a period of scarcity at once threw the parent colony on the grain resources of the island. In the period embraced from the year 1838 to the 22nd August, 1843, no less than 1,120,462 bushels of wheat, inclusive of that made into flour, were exported from Van Diemen's Land, the greater portion of which found its way to Sydney.

At the beginning of the year 1840 the price of flour in Sydney ranged from £30 to £41 per ton, and wheat was selling at 12s. to 13s. per bushel; but as the year advanced wheat went steadily up in price, and the 4lb. loaf was 1s. 6d. Quotations for butchers' meat in the carcase were as follow:—Beef, 7d. per lb.; mutton, 5½d.; and pork, 10d. In the month of August flour at the Sydney mills ranged from £30 to £36 for fine, from £30 to £31 for seconds, and £28 for ration. A visitor to Sydney at this time quotes the following prices for various articles of diet:—

	s.	d.		s.	d.
Turkeys, each	25	0	Eggs, each	0	4
Geese, each	12	0	Butter, per lb.	4	0
Ducks, per pair	8	0	Milk, per quart	1	0
Chickens, per pair	6	0	English ale, per glass	0	6

The retail prices of provisions in Sydney for the quarter ending 31st December, 1841, were quoted as follow:—

	s.	d.		s.	d.
Wheat, per bushel	6	8½	Meat, fresh, per lb.	0	4¾
Flour, per lb., from 3¼d. to	0	4¼	Salt, per lb.	0	2¼
Tea, per lb.	4	9	Soap, per lb.	0	9¼
Sugar, per lb.	0	5¼	Tobacco, per lb.	4	10¼

There was a general decline in the prices of provisions in 1842, when beef in the towns ranged from 2½d. to 4d. per lb., and mutton from 2d. to 3d. The price of flour during the same period ranged from £14 to £24 per ton. In 1843 wheat in Sydney ruled, according to quality, during a portion of the year, from 4s. to 5s. per bushel; and flour from £12 to £16 per ton. Meat was sold at 1d. per lb., and tea at 1s. 8d. per lb. At the end of the year wheat was selling in Sydney at 4s. 6d. per bushel, while the prices in the other Australian cities were as follow:—Hobart, 3s. 9d.; Melbourne, 3s. 6d.; and Adelaide, 2s. 6d. per bushel.

House-rent and lodgings were very high-priced in Sydney, although in the country districts they were reasonably cheap. A house suitable for the residence of a mechanic and his family cost from 15s. to 18s. per week. From the Census of 1841 it would appear that the demand for residential accommodation so considerably exceeded the supply that people were compelled to take up their quarters in habitations still in the hands of the builder, no less than 809 such dwellings being occupied prior to their completion. In the country districts a hut suitable for the residence of an agricultural labourer cost to erect about £10; but it was, of course, a very inferior description of building.

Notwithstanding the salubrity of the climate, and the reiteration of different writers as to the small amount of clothing necessary to be worn in New South Wales as compared with the United Kingdom, labourers, and particularly agricultural labourers, required a quantity of strong clothing, apart altogether from any question of climate; and this in the year 1840, when wages were regarded as being particularly high, was fairly expensive. In 1842, when wages had fallen considerably, the cost of clothing still remained sufficiently high to constitute a serious drain on the earnings of a man in receipt of 6s. or 7s. per day, or from £19 to £20 per year with rations. According to a list of prices, bearing date 30th June, 1842, the following quotations represent the cost of the most necessary articles of clothing, and of some other goods, on that date :—

Men's Clothing.

	£	s.	d.		£	s.	d.
Coloured shirts, each	0	3	3	Boots, per pair	0	10	0
Flush trousers, per pair	0	12	0	Socks, per pair	0	1	6
Moleskin trousers, per pair	0	12	0	Vests, each	0	4	0
Moleskin jackets, each	0	12	0	Shepherd's coats, each	1	10	0
Straw hats, each	0	5	0	Handkerchiefs, each	0	1	0

Women's Clothing.

	£	s.	d.		£	s.	d.
Chemises, each	0	5	0	Aprons, each	0	2	0
Petticoats, each	0	10	0	Stockings, per pair	0	2	6
Gowns (print), each	0	10	0	Shoes, per pair	0	7	6
Bonnets and caps (print), each	0	9	3	Stays ,,	0	15	0
Shawls, each	0	10	0	Merino dresses, each	1	5	0

Other goods.

	£	s.	d.		£	s.	d.
Blankets, per pair	0	12	0	Rugs, each	0	5	0
Mattresses, each	0	12	0				

Clothing was, however, the only thing which the yearly servant was obliged to purchase, save articles of luxury, such as tobacco, for which he might have a desire; abundance of the common necessaries of life, such as meat, bread, tea, and sugar, together with a hut to live in, being provided by the employer. From £7 to £10 per year might be allowed for the purchase of such rough clothing as was necessary for bush wear; hence, although the cost of living had increased considerably, the ultimate wages that remained to the labourer were higher during this period than at any time since the foundation of the colony. These rates were not, however, long maintained. The position of the mechanic in the towns was somewhat different from that of the agricultural labourer in the bush. The former, besides having to bear the cost of clothing himself, was obliged to rent a house to live in or to hire lodgings, and to purchase food and fuel; but a mechanic earning £125 per year could allow £62 to cover the expenses of his own rations, including bread, meat, tea, and sugar, and house rent, fuel and clothing, and he would still have £63 left with which to provide for a wife and family, and this was a considerable advance on the labour conditions of the preceding period, or such as were obtaining in England.

The opening years of the period were marked by the floating of assurance, auction, steam navigation, and other joint stock companies, and by general speculative activity. Capital for investment on behalf of English companies and on private account was abundant. The cessation of transportation, however, though it ultimately proved advantageous to the community, had an immediate result in stopping the expenditure in the colony of large sums from the British Exchequer; and the effects of this cessation of expenditure became visible almost simultaneously with a reaction after the inflation of 1839 and the following year. Prices fell, property became depreciated in value, and ruin impended. The action of the Government helped to bring matters to a crisis. The proceeds of the land sales, amounting at one time to fully £350,000, were lodged in the banks, and the highest rates of interest were exacted; hence the banks were obliged to reissue in discounts the proceeds of these identical sales, the original purchase-money for which was represented by paper. When the bounty system of immigration was at its height, the Government drew out their deposits almost as rapidly as they had lodged them. This action obliged the banks to suddenly restrict their discounts, and gave the initial downward impulse to the money market.

It was the fashion at the time to attribute all the reverses suffered by the colony to a cessation of the system of assignment of bond labour; but this was obviously not the case, although it cannot be denied that the condition of affairs was temporarily made more acute by the policy of the Government. The period was one of commercial and social transition and adjustment, during which fresh financial and industrial conditions were being arranged, and the community was unconsciously preparing itself for vast changes and new developments. Repudiation was the order of the day, and hundreds availed themselves of the insolvency law, which came into operation on the 1st February, 1842, and which was designated by the satirists of the time as "Burton's Purge," in allusion to the author of the legislation. A list of the insolvents in Sydney and its neighbourhood, from the last-mentioned date to the 4th August of the same year, a period of six months and four days, covered a sheet larger than a page of the *Morning Herald*, and included the names of 392 persons and firms. The liabilities of some of the estates were, considering the times, enormous, ranging from five to ten, twenty, thirty, forty, and fifty thousand pounds, while one failure was for £175,235. The total amount of the liabilities of these 392 insolvents was, in round numbers, a million and a quarter sterling, although many of them were able to show good assets. From the 1st

February, 1842, to the 31st December, 1843, the insolvents numbered no less than 1,135; and of these 600 belonged to the eleven months ending the 31st December, 1842, and 535 to the succeeding year. During 1843 a local ordinance was passed for the abolition of incarceration for debt, and came into operation on the 1st April of the same year.

The failures caused credit to sustain a general and severe shock; there was an extreme contraction of the ordinary course of trade, a total absence of speculation in business, and, consequently, a great diminution in the amount of legitimate transactions. Vigorous efforts were made to realise funds for the discharge of existing debts, and property was forced into the market for sale until purchasers could hardly be found at any price, and the inevitable result was that persons known to be possessed of large properties were unable to meet their engagements. In most of the country districts orders on Sydney agents were the medium of circulation used by the settlers, and when these no longer passed current, as in times of confidence and prosperity, specie (which did not really exist) was demanded, and thus great sacrifices were rendered compulsory, because property, though of intrinsic worth, possessed no exchangeable value. Historians of the period narrate cases of enforced sales in which sheep fetched very small prices, sometimes as little as 6d. being obtained for them, while cattle occasionally realised as little as 7s. 6d., and valuable horses only £3 each.

The Legislative Council, imagining that the very existence of the colony was threatened by the prevailing state of things, sought to "avert ruin" (to use their own expression) by "pledging the public credit," but the Governor refused the Royal assent to the Bill passed for that purpose. It was then proposed to issue Treasury bills, but the Council would not entertain the idea. The failure of the Bank of Australia, the liability of whose shareholders was unlimited, brought affairs to a crisis, and it was proposed to relieve the shareholders by a Bill empowering the bank to dispose of its assets by a public lottery. No attempt was made to defend lotteries in general, but it was contended that if the goods of proprietors of the bank were seized under execution, the bailiff would be seen in possession of one house in every ten in Sydney, and the result would be a panic which would altogether annihilate the value of property. Under pressure of such an argument as this, the "Lottery Bill" passed, but was disallowed by the British authorities. The necessity of the case was so urgent, however, that the lottery took place, and was successfully completed before the law officers of the Crown could interfere to prevent it.

When matters were at their worst, and the price of sheep had fallen, as a common quotation, to 1s. per head, there was made what was hailed as a "great discovery," viz., the boiling down of sheep exclusively for tallow, for which product there was then a good market in Europe. The price of sheep was thus raised to 3s. or 4s. per head, 5s. or 6s. worth of tallow being obtained by the process of boiling down. Consequently, in a brief space of time tallow began to occupy a chief place as an article of export with wool and coal. Other staple products were sperm oil, black whale and sea-elephant oil, seal-skins, wattle-bark, salt beef, hides, sheep-skins, and kangaroo-skins. The meat-canning industry was attempted by Mr. Sizar Elliott, of Charlotte-place, Sydney, and by Mr. Laidley, but it was not a success financially, although the preserved meats were, it is said, of excellent quality.

Commercial relations were opened up during the period with Hong Kong, as well as with British India; and the trade, which was principally in horses, was of a profitable character. For some of the general exports of the colony, the prices ruling in the London market in the year 1840 were as follow:—Bark (mimosa), per ton, £11 to £12; gum (kino), per cwt., £20 to £30; hides, per lb., 3¾d. to 4¾d.; oil (southern), per tun, £24 to £25 10s.; sperm oil, per tun, £110 to £111; whalebone, per ton, £135; wool, per lb., 10d. to 2s. 7d.; and cedar, per foot, 4½d. to 5½d. During the year 1839, the exports of the product of the southern fisheries comprised 12,029 tuns of black oil, valued at £41,341, despatched principally to Great Britain; and 12,079 tuns of sperm oil, valued at £111,280. The fisheries were, however, an industry which the colony was outgrowing, and they were being eclipsed in the value of their export by wool. In the year 1840 the product of the fisheries exported was valued at £224,144, while the wool exported was valued at £566,112, and the latter thenceforward began to be regarded as the leading staple of the colony. Towards the close of the period the whale and seal fisheries became gradually diverted from Sydney control into the hands of Americans, who subsequently absorbed almost the entire industry in Southern waters. Some of the products of the fisheries continued to find their way to Sydney for re-export after the industry ceased to be prominently Australian, but even this advantage to the port was lost shortly after the gold discovery.

Fourth Industrial Period, 1843–1852.

This epoch in the industrial history of the Colony is intimately associated with the names of Sir George Gipps and Sir Charles Augustus Fitzroy. The closing years of the previous period were, as just narrated, marked by financial failures and general insolvency. It was a time when a live sheep was found to be worth less than the fat of a dead one; when wool had fallen 50 per cent. in price in the London market; when the profit derived from the whaling industry was suffering a serious shrinkage; when all commercial activity was in a condition of languishment, and speculation was practically at an end.

Although the year 1843 ushered in a period of depression and long-continued distress, an intermittent system of immigration was carried on, but not nearly to the extent desired by the settlers. Nevertheless, while the Legislative Council was petitioning for the continuous introduction of a due supply of shepherds and agricultural labourers, the Government during the same year was compelled to give employment to a great number of labourers. Many workers left the colony for Valparaiso and other places, and certain discontented immigrants had departed from Port Phillip for the Cape of Good Hope. The probability is that it was not labour which was hard to obtain, but "cheap" labour, and to meet this demand various expedients were resorted to, the one finding most favour being the proposal, revived from time to time, to introduce hill coolies from India. This proposition was, however, not only opposed by the people of the colony, but, as before stated, the Secretary of State refused to it the sanction of the British authorities.

The demand for labour at this period was confined almost wholly to shepherds and other pastoral workers and domestics. The Governor, in despatches under date of August and September, 1843, stated that in Sydney considerable numbers of workmen had been thrown out of employment in consequence of the check that the building trade had received by the general pecuniary distress and the reduction in house-rents, and he added that the arrival of immigrants in any great numbers under such circumstances must prove injurious to all parties. But the policy pursued by the Legislature, which represented exclusively the interests of the propertied class, was to promote competition in the ranks of labour by excessive immigration. During the year 1844, as many as 10,000 and 12,000 immigrants were demanded as an annual "export" from the United Kingdom; but the sales from the waste-lands of the colony had practically ceased and there was no other fund from which the passage of immigrants could be paid, and great discontent was manifested because the British Government entered into a contract for the free transmission of only 4,000 adults. In 1846 requests were made by the Legislative Council for the despatch from the United Kingdom to New South Wales of 12,500 emigrants annually, to be made up of 4,000 or more men, an equal number of women, and, in the case of married couples, of an equal proportion of children; the same ratio of immigration to be continued for a period of not less than three years. The Governor recommended that the immigrants imported at the public expense during the year in question should number 4,000; and during the ensuing two years, 9,000. The fact is, that elaborate calculations were for ever being made of a proportionate occupation of new lands, and a proportionate increase in flocks and herds, based on the experience of past prosperous periods. No allowance was made for the possibility of the new areas opened up turning out sterile, arid, and unadapted for grazing purposes; no discount was allowed for flood or drought, or a fall in the price of the staple; hence the requisitions for the introduction of labour for years ahead were nearly always based upon an over-estimate, and the unfortunate immigrants were, of course, the principal sufferers.

Many of the large stock-holders of this period were enthusiastically in favour of a return to the old system of the assignment of bond labour, although the inhabitants of the towns were naturally just as keen opponents as the property-owners were advocates of that policy. The scheme of compromise proposed by the British Government met with little favour from either party, and the idea of making the colony a probationary dumping-ground for holders of tickets-of-leave, who had been provisionally punished in the English hulks prior to being deported on a sojourn of a reformatory character in a distant colony, among a rapidly-increasing free community, was scouted with vehemence on nearly every side, although an influential minority worked steadily for its accomplishment. It was generally argued that the adoption of such a system must utterly destroy the value of free labour and annihilate wages, while the mere fact that New South Wales had managed to slip her early shackles was held by many to be a sufficient reason for resisting any attempt to reimpose them, no matter what euphemism might be adopted to cloak the movement.

A considerable number of the flockmasters held the view—a perfectly reasonable one—that while the morale of the probationers would be no better, and probably, on account of greater license, much worse than that of the assigned servants of a former day, their own punitive control over their labourers would be very much less. The free immigrants, compelled to work for their living as employés of others, scented dangerous competitors, whose introduction into the colony might result in a depreciated wage; and the employers of the emancipated class saw only the revival of a caste reproach, and the recrudescence of hated social distinctions. It must not, however, be imagined that Lord Stanley and Earl Grey acted with any special inconsiderateness in continuing the transportation of convicts to New South Wales and Van Diemen's Land. The great employers, the absorbers of "abundant and cheap labour," were the real rulers of the country. From their ranks were chosen the members of the Legislative Council; they had the ear of the Governor; and the Governor, in turn, had the ear of the Secretary of State for the Colonies; while the English authorities were only too anxious to relieve the over-crowded condition of their gaols. Two powerful interests, therefore, were allied in an effort to re-establish transportation and the system of assignment. To meet this threatening combination, a number of public meetings were held in Sydney under the auspices of the Anti-transportation League, and an overwhelming expression of popular opinion, most vehemently adverse to the scheme, was given; nevertheless the British Government, under the advice of Sir Charles Fitzroy, persisted in its endeavours to force prisoners upon the unwilling inhabitants of the colony.

Several ship-loads of convicts were sent out, and an attempt was made to land them at the new settlement at Port Phillip. The settlers there, however, would not tolerate the proceeding, whereupon the ships were compelled to leave for Sydney and Moreton Bay. One of the vessels, named the Hashemy, cast anchor in Port Jackson, on the 8th June, 1849, and there instantly ensued a serious contest between the inhabitants and the Executive. Immediately upon the fact becoming publicly known that the Hashemy was off the Heads with convicts on board, the people of the metropolis were lashed into a fever of excitement, and a great public meeting was forthwith convened to consider what steps should be taken in this pressing emergency, as it was universally considered. The result was that the Government saw fit to forbid the landing of the prisoners at that time, not caring to face the obloquy and public indignation which the adoption of any other course would certainly have brought upon them. As, however, the Hashemy could not be sent back, and her prisoners could not permanently remain on board, a compromise was entered into. The prisoners were removed from the ship, and a large number sent to Moreton Bay, in order that the settlers in that district might have an opportunity of hiring them. The remainder were allowed to be assigned to various persons in the colony, though it was stipulated that the men should not be landed in Sydney, nor employed in the county of Cumberland.

The Legislative Council afterwards proceeded to take action in the matter, and a resolution was prepared to the effect "that an address be presented to Her Majesty, praying that the Order-in-Council which declared New South Wales a colony to which convicts might be sent, be at once revoked." The adjournment of the Council was, however, agreed to before the motion could be put. In consequence of this partial shelving of the question a great public meeting was held, at which it was decided to petition the Council to use its utmost endeavours to prevent the revival of transportation in any form. The petition, within a short time, was signed by upwards of 35,000 persons, or by more than two-thirds of the population of Sydney. There was no resisting this manifestation of public opinion, and the pro-transportation members temporarily withdrew from the Council, whereupon the motion just stated was carried unanimously, and the address to the Queen was accordingly transmitted. The Order-in-Council was revoked, and transportation to New South Wales was thus, after many years of fretful agitation on both sides, finally abolished.

With the disappearance of the convict from the stage of industrial life, the immigrant became an object of greater attention than ever before. Various schemes were mooted by the sheep and cattle breeders to procure labour at the old rates. One of these schemes was the introduction of expired-sentence men from Van Diemen's Land, and associations were formed for the purpose, both in the parent colony and at Port Phillip. That the efforts of the associations were not ineffective is proved by the fact, given in a return printed by order of the Council, that in 1847 the number of persons leaving Van Diemen's Land for the other colonies amounted to 4,787; in 1848, to 3,799; in 1849, to 4,617; in 1850, to 4,146; and in 1851, to 6,931; or a total for five years of 24,280.

Towards the close of the period, and in consequence of the decline of several of the leading industries, a new view began to be taken of the possibilities of the climate of New South Wales, inclusive, of course, of the northern sub-tropical districts of what has since become the colony of Queensland; and regulations were issued with the view of promoting the introduction of foreigners to cultivate such commodities as wine, oil and silk, which could not be produced in the United Kingdom, and for the tending or manufacture of which skilled labourers could not consequently be obtained in the mother country. Such colonists, therefore, as desired to employ their land and capital in the production of the commodities indicated, were offered by the Government a bounty of £36 for a married man and his wife (the age of neither of whom should exceed 50 years), and a bounty of £18 for each child, male or female, above the age of 14 years, accompanying both parents, or one of them. It was recognised that the definition of the foreign labourers for whom bounties would be allowed was necessarily impossible, and any attempt at such definition would have been inconsistent with the object in view—to provide a supply of labour requisite for the progressive development of the capacities of the soil as they might from time to time become known. As a general rule, however, the Government intended to limit the allowance to such labourers as were requisite for raising articles which were the produce of the soil, and for bringing them into their simplest marketable shape. In illustration of this principle, wine and silk were instanced, viz., that in the case of the former, bounties should be offered for every description of labourers necessary for the culture of the grape, and the manufacture and casking of wine; and in the case of the latter, for all labourers required for the production and preparation of the raw material, but not for its manufacture. Under this regulation, bounties were not allowed for such persons as overseers, nor for any labourers obtainable from the United Kingdom.

The number of each class of immigrants forwarded to the colony, and arriving in Sydney during the course of a year (1848), is shown in the following table:—

Class of Immigrants.	Males.	Females.
Agricultural labourers	1,782	......
Shepherds	171	......
Other labourers employed in the management of stock or cultivation of the soil	79	......
Domestic servants	41	1,542
Mechanics engaged in erecting buildings or in obtaining or preparing building materials	264	......
Tradespeople engaged in preparing or selling articles of food	53	......
Tradespeople engaged in making articles of clothing	20	75
Other tradespeople, mechanics, etc.	331	15
Total	2,741	1,632

A curious fact of this period is to be found in the return to England of expired-sentence men. While the Government were vainly petitioning for immigrant labour, the expense of the introduction of which they were prepared partially to bear, acclimatised and experienced workers were leaving the colony as rapidly as they could, and paying their own passage-money to the mother country.

About the year 1849 the emigration from Australia to California, which had set in as a result of the discoveries of gold in this State, began to grow more and more noticeable. In the month of July, during three weeks, three vessels sailed, conveying from Sydney upwards of 100 passengers. In 1850 the desire to emigrate to California had become general, and the most stringent regulations were found to be necessary to prevent overcrowding on the outgoing vessels. During the first six months of 1851 twelve ships left Port Jackson, conveying to the new gold-fields of America 1,684 passengers, many of whom had been introduced into the colony at the expense of the Land Fund. This migration was not, however, exactly a real exodus. Numbers of genuine settlers doubtless left the country during the long period of depression, dazzled by a rising star of fortune in the east; but many who left the colony were persons who had simply made the bounty system of emigration to Australia the means of proceeding at a smaller cost to the gold-fields in western America. In 1851, when gold was discovered also in New South Wales, the tide of immigration to the colony not only set in in a steady volume, but the impulse to emigrate from Australia was arrested, and California, in the matter of population, ceased to profit at the colony's expense.

Wages varied very considerably during the period under review. Different contemporary authorities give different accounts; but the rate of wages depended, no doubt, upon the distance of a district from the seaport, and its accessibility to Sydney or Melbourne. In the Port Phillip District, for instance, wages appear to have been higher at this time than in New South Wales proper, and they varied very much even in the parent colony. In the southern districts, during the year 1843, station servants, hut-keepers, and shepherds received £18 per annum with rations; in the more central districts shepherds' wages ranged from £15 to £20 per annum, together with rations; and the wages of some classes of farm labourers, such as good ploughmen, from £20 to £25. Domestic servants received from £12 to £15, and even £20, "according to abilities." The wages of artisans were, in 1845, quoted at rates varying from 2s. 6d. to 4s. 6d. a day; and employment moreover, even at such low remuneration, was exceedingly difficult to obtain. In 1849, while the mechanics of Sydney were suffering great distress for lack of employment in their respective trades, and were being roughly censured by the local press because they would not go into the bush and labour as hut-keepers and "rouseabouts," newly-arrived immigrants were being engaged at the following rates:—Single girls as domestics, 5s. per week and rations; general farm-labourers, from £16 to £18 per year and rations; and ploughmen at from £20 to £25 per year and rations, house, water and fuel found. In some cases experienced shepherds, who thoroughly knew the conditions of the climate, and the variations of pasturage, received £30 a year and rations. In the year 1850 stockmen and shepherds received from £15 to £18 a year; bullock-drivers and ploughmen, from £18 to £20; and male domestic servants from £17 to £22; in all cases, of course, inclusive of rations, lodgings, fuel, and water.

In the following table, which gives the medium rate of wages for each year during the entire epoch, may be traced the emergence of the colony from the depression of 1843 to the hopeful new conditions of 1852:—

Trade or Calling.	1843.	1844.	1845.	1846.	1847.	1848.	1849.	1850.	1851.	1852.
Males, per day, without board and lodging.										
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Carpenters	5 0	4 0	4 0	5 2	5 6	5 3	4 9	4 6	6 5	9 0
Smiths	5 0	4 0	4 3	5 2	5 6	5 3	4 9	4 6	6 8	9 0
Masons	5 0	4 0	4 0	5 2	5 6	5 3	4 9	4 6	7 8	9 0
Bricklayers	5 0	4 0	4 0	5 2	5 6	5 3	4 9	4 6	6 0	9 0
Wheelwrights	4 0	3 6	3 3	4 8	5 0	5 3	4 9	4 6	6 4	9 0
Males, per annum, with board and lodging.										
	£	£	£	£	£	£	£	£	£	£
Farm labourers	15	15	18	20	23	21	18	18	20	28
Shepherds	14	14	17	20	23	21	18	18	20	28
Females, per annum, with board and lodging.										
Cooks	15	15	18	20	22	21	17	17	20	22
Housemaids	15	15	15	17	17	17	14	13	16	16
Laundresses	12	12	15	17	19	18	15	15	16	20
Nursemaids	10	10	12	15	16	14	9	9	9	16
General servants	12	12	16	16	18	16	12	14	16	17
Farm-house servants	10	10	12	16	17	16	12	11	13	14
Dairy-women	10	10	12	16	17	16	12	11	13	14

Rations, valued at about £12 per annum, were supplied to such employés as station servants, hut-keepers and shepherds. The weekly ration, as stated by a Select Committee on Immigration, comprised 10 lb. meat, 10 lb. flour, 2½ lb. sugar, some tobacco, and ¼ lb. tea. If wages were low during the first portion of the period, so also were provisions, and the cost of living was very considerably reduced, bread selling at 2½d. to 3d. the 2-lb. loaf; meat, from 2d. to 3d. per lb.; sugar, from 2½d. to 3d.; and wheat, from 4s. to 6s. per bushel; while dairy produce and vegetables were plentiful and cheap. In 1844 beef and mutton in Sydney were retailed at 1½d. and 2d. per lb., and other commodities were proportionately cheap. The following are Sydney market quotations for the year mentioned :—

Wheat, per bushel	2s. 6d. to 3s. 6d.
Maize, per bushel	1s. 0d. ,, 1s. 4d.
Oats, per bushel	2s. 0d. ,, 2s. 6d.
Barley, per bushel	2s. 6d. ,, 3s. 0d.
Bread, per 2-lb. loaf	2d.
Butter, fresh, per lb.	0s. 10d. to 1s. 0d.
,, salt, per lb.	9d.
Flour, per ton	£8 to £8 10s.
Potatoes, per ton	£1 10s. to £2
Eggs, per dozen	6d. to 8d.
Peas, per peck	6d. ,, 8d.
Pumpkins, per doz.	2s.
Beef, per qr., per lb.	0s. 0½d. to 0s. 0¾d.
,, retail, per lb.	0s. 1½d. ,, 0s. 2d.
Veal, per lb.	0s. 3d. ,, 0s. 3¼d.
Poultry, per pair	2s. 0d. ,, 2s. 6d.
Rabbits, per pair	4s. 6d. ,, 5s. 0d.
Sheep, each	6s. 0d. ,, 8s. 0d.
Fat cattle, per head	£2 5s. ,, £2 15s.
Milch-cows (including calves), per head	£1 15s. ,, £3 15s.

In 1845 flour was quoted at £10 per ton, cattle at £1 per head, and sheep at 5s. per head. Provisions appear to have remained fairly cheap, throughout the period, in all parts of the colony. In 1847 Melbourne market quotations gave potatoes as selling retail at 3s. 6d. to 4s. per cwt.; most kinds of fruit and vegetables at low rates; geese and turkeys, from 6s. to 7s. each; ducks, from 3s. 6d. to 4s. per pair; fowls, from 3s. to 3s. 9d. per pair; eggs, from 1s. 6d. to 1s. 9d. per dozen; and butter from 1s. to 1s. 2d. per lb. In the month of March, 1848, wheat was quoted in Sydney at 5s. per bushel; meat at 2d. per lb., and tea at 2s. 3d. The prices of provisions in Sydney markets in 1849 were according to the following rates :—

Wheat, per bushel	4s. 0d. to 4s. 3d.
Maize, per bushel	1s. 8d.
Flour, fine, per ton	£11
,, per lb.	1½d.
Potatoes, per ton	£6
Butter, per lb.	8d. to 9½d.
Cheese, per lb	4d.
Bacon and ham, per lb.	4½d.
Geese, per pair	6s.
Ducks, per pair	4s.
Fowls, per pair	2s. to 3s.
Beef, per lb.	2d. to 3d.
Mutton, per lb.	1½d. to 3d.
Veal, per lb.	4d.
Lamb, per lb.	4d.

The retail prices of articles in general use were as follow :—Fresh butter, 1s. per lb.; milk, 3d. per quart; tallow candles (locally-made), 4d. per lb.; cheese, 6d. per lb.; coffee, 1s. 1d. per lb.; tea, 2s. per lb.; moist sugar, 3d. per lb.; refined sugar, 6d. per lb.; colonial tobacco, 9d. per lb.; and other articles of ordinary consumption at like low prices. A sheep could be purchased at 4s. 6d. to 6s., and a milch-cow at 20s. to 30s. In the fall of the year, however, fat cattle were quoted at £5 per head, and beef and mutton were sold at the unusual prices of 4d. and 5d. per lb., but meat did not long remain so dear. In December, 1849, prime beef was quoted at 6s. 4d. to 8s. per cwt.; mutton was selling at 2d. per lb.; fat stock had declined to 50s. a head; and wheat was quoted at 3s. 8d. per bushel. In 1850 beef was retailed in Sydney at 1d. to 1½d. per lb.; tea was 1s. 6d. per lb.; sugar, 2½d. per lb.; and wheat, 3s. to 3s. 6d. per bushel.

House rent remained comparatively high, notwithstanding that building was at a standstill, that mechanics were looking vainly for employment, and that house property had fallen 33 per cent. in value consequent upon the emigration of people to California. A return dated 1849, which dealt with franchise qualifications, showed that there were within the limits of the city of Sydney 288 houses with a rental of under £5 per annum; 1,493 with a rental of £5 and under £10; 1,757 with a rental of from £10 to £20; and 4,204 with a rental of £20 and upwards.

About the beginning of the year 1844 some slight reaction was experienced in the trade of the colony, and the depressed state of local interests was felt to be reviving. Contemporary writers hailed the new year as a fresh starting-point for renewed enterprise and confidence; but, unfortunately, the condition of things was in no way permanently improved, and the depression shortly afterwards became more pronounced than ever. Australia, however, had no exceptional experience, and there is little doubt that the local disasters were but the back-wash of the wave of depression which rose in Europe. Throughout the whole of the eastern colonies the greatest distress was felt, and many mercantile houses whose credit had hitherto been undoubted, and who proudly dated their establishment from the foundation of the settlements, were laid prostrate.

Boiling-down, meat-canning, and other devices were resorted to in order to revive the commerce of the colony from the stagnation and lethargy into which it had fallen, yet notwithstanding all expedients affairs steadily became gloomier, prices continued seriously to decline, and speculation was practically at a standstill. It is difficult to imagine to what depths the colony might have sunk had it not been for the discovery of gold in 1851, when the face of everything, as if at the word of a magician, became instantly changed, although the full influence of the discoveries was not felt until the following year.

The industries during this period comprised sheep and cattle-breeding, whaling and sealing, coal-mining, horse-breeding, general and dairy farming, timber-getting, and gold-mining. Boiling down sheep and cattle for their fat was, of course, only an effort to realise something on depreciated stock—an expedient which cannot be regarded as a legitimate industry at all; while the southern whale fisheries were passing into the hands of the Americans. From time to time small vessels were sent to collect trepang on the northern coast, and this was subsequently exported to China, where it commanded a ready market; but it appears that the industry was not sufficiently remunerative, and it was, therefore, allowed to fall off. The production of tallow, just prior to the discovery of gold, was, to all intents and purposes, the colony's staple industry. In the fall of the year 1847 a local journal bewailed the fact that the production of a yearly output of 10,000 tons of tallow necessitated the slaughtering of 75,000 head of cattle (sufficient to feed 90,000 people for one year, at the proportion of 10 lb. of meat per week each), and 400,000 sheep (sufficient to feed 40,000 people).

The manufacturing progress of the colony during this period can be fairly gauged by the following table, which shows the increase in the number of the various industrial establishments from 1829 to 1848:—

Establishments.	1829.	1848.
Distilleries	3	2
Rectifying and compounding establishments	......	2
Breweries	6	21
Sugar-refining works	......	2
Soap works	3	18
Candle factories	3	
Tobacco and snuff factories	......	4
Cloth factories	6	6
Hat-making establishments	2	4
Rope-works	......	4
Tanneries	11	40
Salt-works	2	2
Salting and preserving meat works	......	5
Gas-works	......	1
Potteries	......	7
Glass-works	......	1
Smelting-works	......	1
Iron and brass foundries	......	13

The following mills were also at work:—

Steam-engine corn-mills	4	65
Windmills	16	26
Water-mills	10	43
Horse-mills	8	38

The colony's principal exports at the beginning of the period were wool, tallow, oil, skins, coal, bark, and salt beef; and, at the close of the period, gold was added.

FIFTH INDUSTRIAL PERIOD, 1852–1858.

The fifth period of the colony's industrial history extends from the year 1852 to 1858, and is properly the period of gold-hunting throughout the eastern Australian colonies, and even in New Zealand. It begins shortly after the separation from the mother colony of the Port Phillip District, and its formation into a separate province under the name of Victoria, and closes just prior to a subsequent dismemberment, in which originated the northern colony of Queensland. The whole epoch may be summarised as one of rapid growth and great change, ushered in with the rush for gold, and ending with the subsidence of the intense excitement and the stoppage of immigration. The first half of the period is associated with the concluding years of Sir Charles Augustus Fitzroy's term of office; the second half with a portion of Sir William Denison's administration. The epoch is chiefly interesting politically on account of the initiation of responsible government, the first elected Parliament of New South Wales assembling on the 22nd May, 1856; and commercially, because of the construction of the first railroad in the colony, and the establishment of steam communication with Great Britain—the Chusan, the first steamer from England, arriving in Sydney on 31st August, 1852.

The discovery of gold not only put an end to the depression of the previous period, but it prepared the colony, by the creation of fictitious values, for another depression, and effected a revolution in all industrial relations. According to contemporary evidence, the supply of labour in many occupations speedily became exhausted, and there were more persons desirous of hiring labourers than there were labourers to be hired. The diggings drained not only Melbourne and Sydney, but Adelaide, Hobart, and every other Australian centre. Most branches of industry and all public works were at a standstill. In 1852 it was estimated that no fewer than from 8,000 to 10,000 men were engaged in gold-mining in New South Wales alone. In 1856, when the output had fallen considerably, the number of gold-miners, according to the figures given in the Census returns collected during that year, was 4,451. Mr. Christopher Rolleston, then Registrar-General, insisted, however, that these figures indicated only those residing on the gold-fields on the 1st March, 1856, who were then actually engaged in digging for the precious metal, and who comprised probably not more than one-third of the number that at different seasons of the year were in the habit of leaving their usual callings to try their luck at digging for gold. As bearing upon the same question, it is interesting to note that the number of persons who found employment in pastoral pursuits fell from 15,619 in 1851 to 12,387 in 1856, notwithstanding an increase of over a million in sheep, and of half that number in cattle. The decrease in the number of hands was not due to improvements effected in the management of station properties, but to the desertion of shepherds and persons tending cattle, who left the uneventful life of the pastoralist to join in the search for gold, principally in the neighbouring colony of Victoria, which province had absorbed over 30,000 persons, chiefly able-bodied adults, who had crossed the river Murray to the gold-fields of the south, and had never returned.

The gold fever brought to Australia not only young, stalwart, enterprising men of great endurance, and capable of adapting themselves to almost any conditions of life, but also multitudes of others whose chief idea was that wealth could be acquired almost without exertion. Unable to endure the hardships of a digger's lot, without trade or profession, and capable of only the lightest manual labour, they mostly drifted back to Sydney, where a large number of unemployed had gathered together in 1858, when the rush to the Port Curtis gold-field broke out. Joining the unemployed from the mines of Victoria and New South Wales, they rushed in thousands to the new field, no less than 4,000 leaving Sydney in the space of a month, while 6,000 went from other parts of Australia. A few weeks sufficed to show that the Port Curtis gold-field could not maintain so many, and in the latter part of the year the majority left for Sydney, where they roamed the streets disappointed and unemployed, until drawn away by the attraction of other rushes.

During this period, in consequence of the impossibility of inducing immigrants to come to the colony from the United Kingdom as labourers and mechanics, and in view of the great dearth of labour in all the ordinary occupations of life, the importation of a useful class of foreigners, particularly Germans, was strongly urged in the public prints, and it was asserted that any number of men from Germany could be persuaded to emigrate from their native land under engagement to refund all the expenses of their passage out. Many, in fact, were so imported, under two years' indentures, at £20 per year, binding themselves to refund £18, the cost of the passage, out of their total earnings. However, systematic emigration to New South Wales from a European country other than the United Kingdom was never carried into effect on any comprehensive scale. It is interesting to note that, in order to facilitate the construction of a railway, the Government consented, in the year 1852, to allow 500 railroad labourers to be brought out at the expense of the immigration fund.

The rates of remuneration for ordinary labour were on the increase in each of the colonies, and many branches of industry were coming to a standstill for lack of men to carry them on. In Adelaide, for instance, wages were not only daily advancing, but settlers were glad to hire the aborigines of the colony to gather in their crops. In the sister colony of Victoria, carpenters, wheelwrights, and bricklayers received, in 1853, 15s. per day, with board and lodging; carpenters, in town, without board and lodging, 28s. per day, and in the country 22s. 6d.; masons, in town, without board and lodging, 26s. 9d. per day, and in the country 25s.; bricklayers, in town and in country, without board and lodging, 25s. per day; and smiths and wheelwrights, in town and in country, without board and lodging, 22s. 6d. per day. In 1854 the rates of wages ruling were quoted as follow:—Smiths in country, 20s. per day; masons, in country, 22s. 6d.; wheelwrights in country, 24s., and in town, 30s.; carpenters in country, 23s., and in town, 25s; and bricklayers in country, 25s., and in town 30s., without board and lodging in each case. But in Victoria wages were much higher than in the parent colony, in consequence of the continuance of the mining boom and the absorption of nearly all enterprise and all available labour in the one direction of gold-getting.

The following table shows the ruling rates of wages in New South Wales during the period, taking only the most prominent trades. To illustrate the vast change which a few years made, the rates for 1851 are also given :—

Trade or Calling.	1851.	1852.	1853.	1854.	1855.	1856.	1857.	1858.
Males, per day, without board and lodging.								
	s. d.	s. d.	s. d.	s. s.	s. s.	s. s.	s. s.	s. s.
Bricklayers	6 0	9 0	15 6	25 to 30	18 to 25	16 to 18	12 to 16	10/6 to 11/6
Blacksmiths	6 8	9 0	12 9	20 to 25	14 to 16	8 to 13	10 to 14	10/6
Carpenters	6 5	9 0	12 6	15 to 20	12 to 15	12 to 15	10 to 12	10 to 11
Coopers	....	....	....	15 to 20	10 to 12	12 to 14	12 to 14	......
Cabinetmakers	....	....	....	15 to 20	12 to 15	12 to 15	12 to 14	......
Farriers	....	....	....	12 to 15	10 to 12	9 to 12	10 to 12	......
Plumbers and glaziers	....	....	....	16 to 20	12 to 15	12 to 15	12 to 15	......
Joiners	....	....	....	17 to 20	12 to 15	12 to 14	12 to 15	......
Ironfounders	....	....	....	16 to 20	14 to 16	12 to 14	11 to 13	......
Locksmiths	....	....	....	18 to 22	16 to 18	12 to 15	10 to 13	......
Quarrymen	....	....	....	18 to 21	16 to 18	12/6 to 15	14 to 16	......
Shoemakers	....	....	....	....	14 to 22	12 to 14	10 to 12	......
Wheelwrights	6 4	9 0	15 0	18 to 20	14 to 16	12 to 14	12 to 14	10 to 11
Plasterers	....	....	16 0	25 to 30	14 to 16	13 to 17	13 to 15	......
Painters	....	....	....	13 to 16/8	13 to 14	10 to 12	8 to 12	......
Stonemasons	7 8	9 0	16 0	25 to 30	....	12/6 to 15	13 to 15	10/6 to 11
Females, per annum, with board and lodging.								
	£ £	£ £	£	£	£	£	£	£
Cooks	16 to 25	18 to 25	24	28	28	25	28	26
Housemaids	14 to 18	14 to 18	17	22	22	21	17	23
Laundresses	7 to 12	15 to 18	20	28	28	24	23	26
Nursemaids	9 to 15	16 to 18	17	18	18	18	18	19
General servants	14 to 18	16 to 18	18	28	23	22	23	25
Farm-house servants	13	14	15	25	22	20	19	25
Dairy-women	13	14	15	25	22	20	19	25

The prices of all sorts of provisions and of all articles of clothing were, during this golden era, largely increased; indeed, there was hardly a commodity in the market, whether an article of use or of luxury, the price of which might not be described as "fancy." In 1853 bread sold at 3½d. to 4d. per lb., but certain lines of provisions were fairly reasonable; for instance, tea was quoted at 1s. 4d. per lb., sugar at 3½d., fresh meat at 3d., butter at 1s. 3d., potatoes at 6s. per cwt., brandy at 23s. per gallon, and imported beer at 5s. per gallon; flour, however, was quoted at 3d. per lb., the price per ton ranging between £20 and £27.

House-rent rose, of course, with the influx of population, the number of persons requiring residential accommodation being so much in excess of habitable dwellings that the Census of 1856 enumerates no fewer than 709 houses as being in occupation although still in the hands of the builder. As illustrative of the exigencies of the time in this particular, it is interesting to note that of 39,807 dwellings, 1,709 were tents, 31 were drays, and 64 were ships used as residences. Of the total number of habitations in the colony, 23,790 were built of wood, and of such inferior materials as bark, slabs, wattle and dab, and the like, and 225 of iron; while more than 32 per cent. of the dwellings were roofed with bark or thatch.

The eight or nine years characterised by the rage of the gold fever exercised a very great economic effect on the condition of the working classes, for had there been no discovery of gold it is not improbable that, with respect to both the standard of living and the remuneration of labour, the conditions existing prior to 1850 would have long remained without any great change for the better. In those days the standard of labour in England was the practical test of the condition of the working classes in Australia, who were thought well off simply because their earnings enabled them to enjoy comforts beyond the reach of their fellows in the Old World. Since the gold era this has been changed, and the standard now made for themselves by Australian workers has no reference to that of any other country. The attractions of the gold-fields had also a marked subsequent effect upon industries of an absolutely different character. Many men, of all sorts of trades and professions, who were drawn to these shores by the prospect of acquiring enough of the precious metal to ensure their independence, remained in the country, and pursued less exciting and less precarious callings, while gold-miners themselves in many cases ceased the exploitation of the mineral which was to have made them rich, and turned their attention to the winning of silver, copper, tin, coal, and other minerals.

Another effect of the gold rush must not be lost sight of. Although New South Wales had ceased to be a place open to the reception of British convicts, yet the colony was permeated with social and economic ideas begotten of the transportation era. The men who had been convicts, or who were born of convict parents, were a considerable element in the population, while the employers had, for the most part, at one period or other of their career, been masters of bond labour. A few years changed all this. It was as if Australia had been newly discovered; certainly the country was recolonised, and the bond population and their descendants became a small minority of the population which every year made more insignificant, until at the present day it is only in out of the way corners that there is anything to remind the observer that New South Wales was at one time a penal settlement.

During the whole of this period considerable activity was shown in testing the navigable waters of the colony, and repeated efforts were made to open up communication by way of the rivers Murray and Darling, which, of course, had a corresponding influence on the great pastoral industry of the colony by affording means of cheap transit for the leading staple of the interior. In 1853, W. R. Randall, in his small steamer, the Mary Anne, was the first to proceed up the Murray, and eventually he reached Maiden's Punt, as the crossing from Echuca to Moama was then named. In the same year Captain Cadell proceeded in a steamer up the Murray to near Albury "with the greatest ease and success." This voyage attracted marked attention, and was the cause of the inauguration of regular steam-service on the river.

Cadell, Johnson, and Robertson, and Mr. Randall, subse-
followed up the original essays in the direction of inland river
n by steaming up the courses of the Murrumbidgee, the
the Barwon, and the Edwards, thus making accessible to popu-
nd opening up to the wool-growing industry, an enormous
of territory. In the north, A. C. Gregory (in search of Leich-
Dalrymple, and other explorers, were successively unlocking
quatters, who followed closely in their wake, the broad areas
age, whose almost immediate occupation advanced the northern
of squatting localities, known as the Moreton Bay District, in
ides to the dignity of the colony of Queensland. It is note-
nd distinctly characteristic of the period, that by the year 1854
ase of land for agricultural purposes had almost ceased, terri-
g taken up instead in large tracts by pastoral lessees for grazing

velopment of the pastoral industry made further and further
s inland a matter of necessity. In the first years of Australian
he coastal belt only was available, but with the crossing of the
untains, in 1813, a new horizon stretched before the pastoral
ion, and with each successive discovery by Oxley or Cunningham
ell or Hume plain was added to plain of pasture, and the paths
plorers were dotted with chains of squattages. In the earliest
pastoral settlement it was customary for stock-breeders to drive
ds to the nearest unoccupied good country when they increased
he grazing capabilities of their pasturages. In this manner the
rses in the western districts became stocked, and the country
g them occupied. The practice came into vogue when cattle
reasing in value, and when, therefore, it was absolutely neces-
reed them at the least expense. These herds were, however,
n strain; they frequently became wild and unmanageable, and
ly with the influx of population during the gold fever days,
gh prices were paid for meat, that they acquired any value.
e, nevertheless, showed that the interior country was good for
zing, and proved that land which had hitherto been regarded as
vas very fattening pasture—for they had discovered "salt-bush,"
plant which retains its vitality when other kinds of herbage have
hered away. The grazing value of the river country, or
, has never since been challenged.
were three great waves of settlement which swept over
. The first, to which allusion has already been made, flowed
inland plains between the colonies of New South Wales,
and South Australia. The second rolled further inland, and
he occupied country, as far as the central basin of the conti-
he third went northward to the downs of Queensland. The
ation of stock arose from the demands for meat made by the
ers. The success of this pioneer movement inspired the second
nt, which was prompted by the demand for wool. The third

essay in pastoral settlement was occasioned by the maintained and increasing value of all squatting property. The growth of the pastoral industry has already been adverted to, and also the influence that the gold discoveries had upon it—on the one hand retarding its development by depriving it of labour, and on the other hand, encouraging it by the creation of a demand for carcase meat. In 1851 the number of sheep in the colony was estimated at about 7,000,000, and in 1861, just after the subsidence of the wild days of speculative excitement, 6,000,000; hence the dearth and costliness of labour, together with the demand for meat, appear to have been responsible for the decrease of the flocks to the extent of 1,000,000 head during the decade. The subjoined statement shows the number of sheep in the colony at each year of the period, together with the value of the exports of wool and of tallow and lard:—

Year.	Sheep.	Exports of—	
		Wool.	Tallow and Lard.
	No.	£	£
1852	7,707,917	676,815	146,811
1853	7,929,708	999,896	134,708
1854	8,144,119	1,181,956	164,256
1855	8,602,499	1,078,017	123,255
1856	7,736,323	1,303,070	137,202
1857	8,139,162	1,275,067	82,134
1858	7,581,762	1,126,486	53,186

Horses and horned cattle, on the contrary, increased, although there was a falling off in the latter in 1858. The number of pigs in the colony gradually decreased to the year 1854; in 1855 they added nearly 5,000 to their number; in 1856, nearly 38,000; and in 1857, over 3,000; but they declined in 1858 by over 16,000. The following are the stock returns for the period:—

Year.	Horses.	Horned Cattle.	Pigs.
	No.	No.	No.
1852	123,404	1,495,984	78,559
1853	139,765	1,552,285	71,395
1854	148,851	1,576,750	63,255
1855	158,159	1,858,407	68,091
1856	168,929	2,023,418	105,998
1857	180,053	2,148,664	109,166
1858	200,713	2,110,604	92,843

Agriculture was greatly neglected during the days of the gold fever, and the sales of land realised far from what might have been expected from the increasing influx of population. In 1840 there were 126,116 acres under cultivation, and the land revenue for the year was £316,626. In 1854, fourteen years afterwards, the number of acres under crop was 131,857, and the revenue from land sales, £319,533. The following statement shows the area under cultivation for each year of the period, together with the revenue derived from the sale of the colony's Crown lands:—

Year.	Area under cultivation.	Revenue from land sales.
	acres.	£
1852	131,730	55,808
1853	139,014	211,035
1854	131,857	319,533
1855	171,100	270,636
1856	186,034	245,555
1857	184,514	210,333
1858	223,296	240,633

In 1846 there were 183,360 acres under cultivation; in 1843 there had been 146,165 acres. A comparison between these years and the years quoted in the foregoing table will show how the agricultural interest had been brought almost to a standstill during the period of the exploitation of the gold-fields. But the excitement caused by the pursuit of the precious metal not only had its temporary effect upon the pastoral and agricultural development of the colony; it retarded also the growth of its manufacturing industries, though it doubtless attracted hither the population to whom these industries owed their subsequent revival, and who supplied labour to operate them. In the following table the mills and factories, together with the population of the colony, are given for each year of the period, with a similar series of facts for the preceding seven years:—

Year.	Population.	Mills and manufacturing establishments.	Year.	Population.	Mills and manufacturing establishments.
1845	181,556	266	1852	208,254	286
1846	196,704	262	1853	231,088	284
1847	205,009	266	1854	251,315	286
1848	220,474	305	1855	277,579	371
1849	246,299	354	1856	286,873	432
1850	265,503	388	1857	305,487	418
1851	*197,168	291	1858	342,062	464

* Decrease owing to severance of Port Phillip District.

With steam communication with other parts of the world, and the introduction into Australia of the railway system, new markets were being created for the trade in coal, although it was not before the subsidence of the gold fever that they began to be availed of. The quantity of coal raised in 1852 was 67,404 tons, and in 1858 over three times as much, viz., 216,397 tons. In 1850 and 1851 the price of coal ranged from 9s. to 10s. per ton; in 1852 it had risen to over 80s. per ton, although it did not remain for an extended period at this high figure. The quantity and value of the production of this mineral during the period under review were as follow:—

Year.	Quantity raised.	Average price per ton.	Approximate total value.
	tons.	s. d.	£
1852	67,404	10 11	36,885
1853	96,809	16 2	78,059
1854	116,642	20 6	119,380
1855	137,076	13 0	89,082
1856	189,960	12 5	117,906
1857	210,434	14 1	148,158
1858	216,397	15 0	162,162

Up to the year 1852 the commerce of New South Wales, as shown in the figures representing the imports, was erratic in an especial degree, but with the year in question came a marked expansion in the colony's trade, and the volume of imports increased in a single year from about two to more than six and a quarter millions, although the returns for the next three years would appear to indicate that the imports of 1853 were due rather to speculative enterprise than to the necessities of commerce. In the following table are given the imports and exports of New South Wales from 1851 to 1858, the former year being included for purpose of comparison:—

Year.	Imports.	Exports.
	£	£
1851	1,563,931	1,796,912
1852	1,900,436	4,604,034
1853	6,342,397	4,523,346
1854	5,981,063	4,050,126
1855	4,668,519	2,884,130
1856	5,460,971	3,430,880
1857	6,729,408	4,011,952
1858	6,059,366	4,186,277

The imports comprised mainly manufactured goods and articles of luxury, while the exports consisted almost exclusively of raw material and gold. The product of the southern fisheries had greatly fallen off by the beginning of the period, and the export of oil, etc., averaged for five years between £25,000 and £30,000 per annum. In 1858 the exports of the fisheries had fallen to £1,450; in 1859 to £532; and in 1860 to £136. With the last-named year, the industry, around which clusters so many historical associations, and which is so peculiarly reminiscent of the early days of Australian settlement, practically disappears, although a few trifling essays have, from time to time, been made to revive it in southern waters, and small quantities of oil have been exported from Sydney.

The table last given demonstrates that from the year 1852 to 1858 the excess of imports over exports was no less than £9,451,415, which shows that British capital was being attracted to the colony, though to nothing like the extent to which it was being showered upon the sister-colony of Victoria. The growth of the exports after 1851 was due, of course, to the quantity of gold sent away during the first years of the diggings, though the industry rapidly declined, not, however, from the exhaustion of the fields, but from the fact that the rapid discoveries of the precious metal made in Victoria afforded a more immediate inducement to exploitation. The subjoined table shows the value of the gold exported from the two colonies up to 1858:—

Year.	New South Wales.	Victoria.
	£	£
1851	468,336	438,777
1852	2,660,946	8,760,579
1853	1,781,172	11,090,643
1854	773,209	9,214,093
1855	654,594	11,070,270
1856	689,174	11,943,458
1857	674,477	10,987,591
1858	1,104,175	10,107,836

The foregoing table explains the tremendous attraction which the southern colony possessed for the population of the Australasian group. Considering also that the imports into Victoria during 1854 were no less than £17,659,051, it is apparent that for a period the parent colony was quite eclipsed by the growth of its own off-shoot, and that the commerce of the South Pacific gravitated to Melbourne. During a single month as many as 152 ships arrived in Port Phillip, conveying thither 12,000 immigrants. The parent colony experienced a diminution of population owing to the attractions of Victoria, but the drain was only temporary, as the population of New South Wales increased from 208,254 in 1852 to 342,062 in 1858, showing, for the entire epoch, a gain of 133,808, or a rate of increase of upwards of 64 per cent. for a space of six years.

It was not until 1846 that the people of Sydney began to awaken to the advantages of railroad communication, and moot the desirability of connecting the metropolis with the inland city of Goulburn; and not until two years afterwards that a company was formed for the purpose of constructing a line to Parramatta and Liverpool, with subsequent possible extensions. In 1850 the first sod of the first railway constructed in Australia was turned. In 1853 a second company was formed, with the object of constructing a railway from Newcastle to Maitland; but both companies came to grief, and the Government was obliged to take the projects over. On the 26th September, 1855, the line from Sydney to Parramatta was declared open to public traffic, and thus was inaugurated the railway system, which has had in more recent times so great an influence upon the commercial development of the colony. For many years, however, railway construction languished, the enthusiasm of its advocates being doubtless considerably damped by the reflection that the short line from Sydney to Parramatta, only 14 miles in length, cost about £700,000—or £50,000 a mile—six times as much as the original promoters estimated would be required to build the line all the way from Sydney to Goulburn, a distance of 134 miles.

Reference has already been made to the opening up of steam communication with England in 1852, during which year the Chusan, the Australia, and the Great Britain—the last-named the largest ship afloat at that time—visited Port Jackson. In 1856 a steam service, of anything but a satisfactory character, was carried on by the Peninsular and Oriental Company and the Royal Mail Company; but the days of efficient ocean communication were still to come. These early essays, however, had no small effect in stimulating the colonists to agitate for something better, and proposals were made for the establishment of a line of mail-packets *via* Panama, but they did not bear fruit until the year 1866.

SIXTH INDUSTRIAL PERIOD, 1859–1862.

The years extending from 1859 to 1862 may be regarded as forming the sixth period in the colony's industrial history. During the whole of this time the country was undergoing the process of recovery from days of excitement and dreams of chance, when the wealthy speculator of one moment became the beggared adventurer of the next, and the outcast of many years the millionaire of as many months. The community appeared to be vaguely restless, as though beginning to realise that the golden era of their experience was rapidly drifting into a prosaic period of sterner conditions, and slower and more arduous growth.

Wages, as recorded for the period, may be regarded as merely nominal, as employment was difficult to obtain, and speculation was ent. The following are given as the rates in the prominent trades allings :—

Trade or Calling.	1859.	1860.	1861.	1862.
Males, per day, without board and lodging.				
	s. d.	s. d.	s. d.	s. d.
ters	9 6	10 6	10 0	10 0
miths	9 6	10 6	10 0	10 0
wrights	9 6	10 0	10 6	10 6
yers	10 6	10 6	11 0	13 0
s	9 9	11 6	11 9	10 0
Males, per annum, with board and lodging.				
	£	£	£	£
Labourers	30 to 40	30 to 40	30 to 40	30 to 40
rds	30 to 35	30 to 35	30 to 35	35
Females, per annum, with board and lodging.				
	25 to 30	25 to 30	25 to 30	26 to 40
naids	16 to 18	16 to 25	20 to 25	20 to 26
resses	20 to 25	25 to 30	25 to 30	30 to 40
naids	15 to 18	15 to 20	15 to 20	15 to 25
l House Servants	20 to 25	18 to 25	20 to 25	25
Servants and Dairy-en	15 to 20	18 to 25	20 to 25	22

average prices of some of the principal articles of consumption e years 1860, 1861, and 1862, are quoted as follow :—

Article of Consumption.	1860.	1861.	1862.
	s. d.	s. d.	s. d.
Wheat, per bushel	8 0	6 6	7 0
Bread, 1st quality, per lb.	0 3½	0 4	0 2½
Flour, ,, per lb.	0 3½	0 3	0 3
Rice, per lb.	0 5	0 4	2d. to 4d.
Oatmeal, per lb.	0 6	0 6	0 5
Tea, per lb.	2 3	2 4	1/6 to 2/6
Coffee, per lb.	1 6	1 6	1/4 to 1/6
Meat, fresh, per lb.	0 4	0 3	0 4
Butter, fresh, per lb.	1 6	1 8	2 3
Cheese, English, per lb.	1 6	1 7	1 6
Potatoes, per cwt.	7 6	7 3	8 0

the close of the preceding industrial period there were in the 7,581,762 sheep; but in 1859 the number had declined to

5,162,671, a decrease due mainly to the severance of Queensland from the mother colony. In the following statement are given the numbers of sheep and other stock in New South Wales during each year of the period, together with the value of wool and of tallow and lard exported at the time:—

Year.	Horses.	Horned Cattle.	Pigs.	Sheep.	Export of Wool.	Export of Tallow and Lard.
	No.	No.	No.	No.	£	£
1859	214,684	2,190,976	119,701	5,162,671	1,458,005	37,275
1860	251,497	2,408,586	180,662	6,119,163	1,454,289	28,794
1861	233,220	2,271,923	146,091	5,615,054	1,768,978	60,816
1862	273,389	2,620,383	125,541	6,145,651	1,801,186	104,030

Renewed attention was bestowed upon agriculture, which had long remained neglected. The area of land devoted to crops, which was 247,542 acres in 1859, had in 1862 increased to 302,138 acres.

The manufacturing industry also made progress, and while in 1860 the factories and works in the colony numbered 567, in 1861 the number was 601, and in the following year 645.

During the period gold-mining was actively prosecuted, and the yield for the year 1862 was better than that of any year since 1852. Coal was gradually growing into a staple commodity, and in 1862 the value of the export reached nearly a quarter of a million of money. The following statement shows the value of gold and of coal produced during each year of the period:—

Year.	Production of Gold.	Production of Coal.
	£	£
1859	1,259,127	204,371
1860	1,465,373	226,493
1861	1,806,171	218,820
1862	2,467,780	305,234

The epoch closed, for the majority of the community, with a certain measure of hopefulness, induced by the introduction of a Parliamentary enactment under the provisions of which land was obtainable by free selection before survey. Sir John Robertson's Land Act—the measure referred to—came into operation in 1861, and the new principle it initiated had lasting, if not immediately apparent, effect on the condition of the working classes, giving them opportunities for employment not previously open to them. The main principle of the measure, which did so much to assist recovery from the dead level of conditions prevailed at the time, is embodied in the following clause :—"Any on may, upon any Land Office day, tender to the Land Agent for district a written application for the conditional purchase of any lands, not less than 40 acres nor more than 320 acres, at the price 0s. per acre, and may pay to such Land Agent a deposit of 25 per um of the purchase-money thereof. And, if no other application deposit for the same land be tendered at the same time, such on shall be declared the conditional purchaser thereof at the price esaid."

he free selector of any portion of Crown lands had three years' it for the payment of the remainder of his purchase-money. Should after that time, be unable or disinclined to make payment, liberty granted him to defer instalments for an indefinite period on paying er cent. interest per annum on the principal amount remaining aid. It was also provided that the purchaser of any area of land 40 to 320 acres should be entitled to three times the extent of purchase for grazing ground, so long as it should not be claimed by other free selector. Certain conditions were imposed regarding lence, which came to be more honoured in the breach than in the rvance.

SEVENTH INDUSTRIAL PERIOD, 1863–1872.

he seventh period in the industrial history of the colony, extending the year 1863 to that of 1872, was one when the El Dorado ms of the fifties had faded from men's minds, and when the social industrial system now existing was evolved. Few incidents calling special comment marked the history of this epoch, during which most important variations in the conditions of labour arose from erse seasons, vast areas of the colony having been visited by rnate droughts and floods. The distress and acute suffering which lted from these truly remarkable vicissitudes of climate were very t, and the destruction of property was in many instances accompanied oss of life. The colony was not inexperienced either in the matter oods or of droughts, but the record of such disasters during this od was exceptional.

he year 1862 had been ushered in with a drought, but in February March heavy rains fell in the west, the south, and the south-west. ds ensued in those districts, but a long period of dry weather ediately followed. In the month of September the drought was so re that the crops began to perish, and the farmers were compelled ut young green yields in order to supply fodder to the cattle. Bush raged in many districts. In February, 1863, the drought broke and in consequence of heavy rains the Hawkesbury rose 27 feet e its average height, and floods everywhere prevailed from Rock-pton in the north to Gippsland in the south. To the floods again succeeded dry weather, which marked the closing months of the year. The year 1864 opened no more auspiciously. The summer proved particularly dry; farmers petitioned Government to be released from claims for seed-wheat advanced during the previous year; crops in many parts of the interior were totally destroyed by rust and drought, and in the north by continued rain—for floods were again submerging many districts of the colony—and efforts were being made in the metropolis to provide accommodation for the houseless poor. The floods, which covered a period of six months, extending from February to July, caused rivers to overflow their banks, swept bridges away, and destroyed a vast amount of property. The year 1865 was normal as regards the seasons, but unsettled conditions again prevailed in 1867. In this year the floods were attended by loss of life as well as by destruction of property; lines of railway were closed in consequence of the heavy rains, and public works in some districts were greatly damaged. The distress of the settlers who had been "washed out" called so loudly for relief that public meetings were held for the purpose of raising subscriptions; the Colonial Secretary and others hastened to the inundated districts with succour, and the butchers and bakers of Sydney sent meat and bread to those who had been rendered destitute. Dry weather supervened from October, 1867, to January, 1868, followed by heavy rains which inundated the valleys of the Hawkesbury and the Hunter. The year 1869 began with a severe drought, and the 13th February was proclaimed by the Government a day of humiliation and prayer for rain. The pastoral industry was severely affected, and the whole country suffered. In 1870 floods prevailed throughout the colony; traffic was stopped, and much property destroyed. A flood relief committee was formed, and, notwithstanding the presence of many unemployed in Sydney, great efforts were made to send succour to the "washed out" settlers. The month of November in this year was specially fraught with disaster from floods. The calendar was simply a record of inundations which were general throughout the colony. About the beginning of the second quarter of the following year, damaging rains again visited the coast. Floods were reported from Penrith and Windsor, and in April and May the Hunter and most of the other coastal rivers overflowed their banks. The year 1872 was one of less tense physical conditions.

The alternations of inundation and drought, which marked this period perhaps more than any other in the history of the colony, had a most baneful effect upon industry. Money was very dear; the finances of the colony were in anything but a satisfactory condition, and Treasurer after Treasurer made ineffectual attempts to make both ends meet. The bad seasons, also, had their effect in aggravating the general feeling of depression by discouraging the flow of capital to the soil. During the keen distress in 1866 the unemployed in Sydney were sorely pressed, and to afford relief a number were sent to Haslem's Creek to clear an area of land for the purposes of a cemetery. At the close of the year, just after the report of a Select Committee on the condition of the unemployed had been published, a rush broke out in the Weddin Mountains, and temporarily drew a great number of the workless away from the city. Towards the end of the period great depression was experienced in commercial circles; little enterprise was manifested in the building trades, and property changed hands at a depreciation in value of about 50 per cent. on the original cost.

The early years of this period were characterised by a large influx of Chinese, to such a great extent that at one time they formed nearly 4 per cent. of the total population, and their presence in New South Wales was for long an important factor in democratic and industrial legislation. With the development of the colony, and the increasing richness of the finds of the precious metal, these aliens poured into the country in ever-increasing volume. In 1856 they numbered only 1,806; five years thereafter they had risen in number to 12,988, or 3·7 per cent. of the population. In 1861 matters with regard to Chinese immigration reached a crisis. The gold-field opened up at Burrangong proved extraordinarily rich; a great rush set in to that place, and large crowds of Chinese flocked to the diggings there. The miners received this influx of Asiatic fossickers with very bad grace, and convened a public meeting for the purpose of deciding whether "Burrangong was a European or a Chinese territory." They likewise addressed a petition to the Assembly complaining of the swamping of the field by thousands of Chinese. This agitation against the alien miners resulted in continuous riotings; the unfortunate foreigners were ejected from their claims, their tents were burned, and they were generally ill-used. The Government, determined to uphold order at any cost, despatched to the scene of the riots, a place called Lambing Flat, a mixed force of artillerymen, with two 12-lb. field-pieces, some men of the 12th Regiment, and some members of the mounted police force. The Premier, Mr. Charles Cowper, also visited the field and addressed a monster meeting of the miners, sympathising with their grievances, but informing them that no redress could be obtained until riot and confusion had entirely ceased. When the Premier had returned to Sydney the excitement rapidly ceased; a new rush to a locality named Tipperary Gully lured away 6,000 miners from the scene of their former disputes, and the Chinese departed to other fields. Thus ended the first labour conflict between the Europeans and the Chinese, who from that date onward to the Prohibition Act of 1888 became a growing menace to the character of the settlement of the Australian colonies.

There was a marked decline in the rates of wages during the period, particularly so with regard to those paid to mechanics. In 1864 the average daily wages of carpenters ranged from 8s. to 9s. in town, without board and lodging; of smiths, wheelwrights, and bricklayers, from 9s. to 10s.; and of masons, 10s. In the country, and inclusive of board and lodging, the wages of carpenters, smiths, and wheelwrights were quoted at £50 to £80 per annum, and of bricklayers and masons from £80 to £100; farm labourers, from £28 to £30; shepherds, from £30 to £35; female cooks and laundresses, from £26 to £30; housemaids, from £20 to £26; nursemaids, from £15 to £26; general house servants, from £20 to £30; and farm-house servants and dairy-women from £18 to £26. In 1865 female cooks received up to £36 per annum, with board and lodging; and general house servants, from £20 to £26. This showed a decline on the rates of wages ruling in 1863, when mechanics received from 9s. to 10s. per day, and from £65 to £100 per annum; and farm labourers and shepherds from £30 to £35. The wages of female servants were not, however, very considerably affected. In 1871, workmen in the metropolis convened meetings to protest against the reduction of wages; nevertheless, there were numbers who could not obtain employment. The wages of carpenters, smiths, and wheelwrights were then quoted as ranging from 8s. to 9s. per day, and from £50 to £70 per annum; of bricklayers, from 8s. to 10s. per day, and from £60 to £80 per annum; and of masons, from 8s. to 9s. per day, and from £60 to £80 per annum. The wages of farm-labourers were quoted as ranging from £26 to £30; shepherds, from £26 to £35; female cooks, at £30; housemaids, from £20 to £26; laundresses, from £26 to £30; nursemaids, from £13 to £25; and general house servants and dairy-women from £20 to £26. The average wages per day or per week, for each year during the period, were as follow:—

Trade or Calling.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.
Males, per day, without board and lodging.									
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Carpenters	9 0	8 6	8 6	8 6	8 6	8 6	8 0	8 6	8 6
Blacksmiths	9 6	9 6	9 6	9 6	9 6	9 6	9 6	10 0	8 6
Wheelwrights	9 6	9 6	9 6	9 6	9 6	9 6	8 6	8 3	8 6
Bricklayers	10 0	9 6	9 6	9 6	9 6	9 6	8 6	10 6	9 0
Masons	10 0	10 0	10 0	10 0	10 0	10 0	8 6	9 6	8 6
Males, per week, with board and lodging.									
Farm labourers	13 0	11 6	11 6	11 6	11 6	11 6	12 3	12 9	10 9
Shepherds	13 0	13 0	13 0	13 0	13 0	13 0	13 3	12 9	11 9
Females, per week, with board and lodging.									
Cooks	11 0	11 0	12 0	10 0	11 0	11 0	11 3	10 9	11 6
Housemaids	9 0	9 0	9 0	9 0	9 0	10 0	9 0	9 0	9 0
Laundresses	11 0	11 0	9 0	10 0	10 0	12 0	10 9	10 9	10 9
Nursemaids	8 0	8 0	8 0	7 0	7 0	8 0	8 0	8 0	8 0
General servants	10 0	10 0	9 0	9 0	9 0	11 0	10 0	10 9	9 0
Farm-house servants and dairy-women	8 6	8 6	8 6	9 0	9 0	10 0	9 0	9 0	9 0

In considering the table just given regard must be paid to the fact that although there was a considerable decline in the daily wage received by skilled mechanics, the prices of commodities in general use also steadily fell. The following table gives quotations for some of the principal articles of consumption for a portion of the period :—

Article of consumption.	1863.		1864.		1865.		1866.	
	s.	d.	s.	d.	s.	d.	s.	d.
Wheat, per bushel	6	6	12	0	8	0	6	6
Bread, 1st quality, per lb.	0	2½	0	3	0	4	0	4
Flour, ,, per lb.	0	2	0	3	0	3	0	3
Rice, per lb.	0	3	0	3	0	3	0	4
Oatmeal, per lb.	0	4	0	4	0	4	0	4
Tea, per lb.	2	0	2	0	2	0	2	6
Coffee, per lb.	1	4	1	4	1	4	1	4
Meat, fresh, per lb.	0	4½	0	4	0	3	0	3
Butter, fresh, per lb.	1	6	1	6	1	9	1	3
Cheese, English, per lb.	1	6	1	6	1	6	1	6
Potatoes, per cwt.	7	0	5	0	8	0	6	0

The stoppage of immigration reduced the demand for residential accommodation, and rents came down to about half the rates ruling ten years before. Capitalists preferred to place their money on deposit in the banks, where they obtained high rates of interest, to investing it in building properties.

In March, 1863, an Intercolonial Conference was held in Melbourne, at which the colonies of New South Wales, Victoria, South Australia, and Tasmania were represented. The questions discussed related to the tariff and kindred matters ; intercolonial customs duties, and their distribution ; transportation from the United Kingdom to the Australian possessions ; a permanent immigration fund, to be provided under Act of Parliament by each colony, upon an equitable basis ; improvement of internal rivers in Australia for purposes of navigation and irrigation ; coast lighthouses, and other maritime questions affecting the shipping interest ; fortnightly ocean postal communication ; Anglo-Australian and China telegraph ; legal questions, including the law of bankruptcy, of patents, of joint stock companies, of probates and letters of administration, and a court of appeal for the Australian colonies ; and a uniform system of weights and measures. These questions subsequently engaged the attention of the various Australian Parliaments, and resulted in the carrying into effect of much useful and needed legislation.

At the beginning of the period a Select Committee was appointed to inquire into and report upon the state of the manufacturing and agricultural industries. On the 12th December, 1862, this Committee brought up a report which stated that from the evidence taken it was shown that manufactures had not increased during twenty years ; that many which had flourished in the past were not in existence ; and that in consequence thousands of youths were wandering about the streets in a state of vagrancy, instead of learning some useful trade. This statement is, however, too sweeping to be accepted literally, and is not supported by any evidence of value.

In the early part of the period the banks required as much money as they could obtain, and were competing for it in the local market, giving for twelve months' deposits 6 and 6½ per cent. interest. Besides the banks, private companies were asking for money, for which they offered 7 per cent.; while there was a large amount of New Zealand Government debentures bearing 8 per cent. interest thrown on the market.

Trouble was experienced with the flocks and herds in 1862 and in the following year. Sheep were infected with catarrh and scab; pleuro-pneumonia was reported to have attacked the cattle, and pleurisy made its appearance among the horses.

Governor Young's term of office, which extended from 1861 to 1867, was marked by a certain amount of agitation in regard to railway matters, but railway construction proceeded slowly, the total mileage open for traffic in 1866 being only 143. Several lines were, however, in course of construction, and at the end of 1871 the mileage had increased to 358. In that year the lines open in Victoria measured 329 miles, and in all Australia, 1,082 miles.

This was the great bushranging epoch in the colony's history, which memorises such unworthy names as those of Frank Gardiner, the Clarkes, Dunn, Johnny Gilbert, Ben Hall, Morgan, Power, "Thunderbolt," and O'Malley. The existence of this dangerous bushranging pest was a source of embarrassment to each successive Government, and a standing challenge to every Ministry that accepted office.

It is unnecessary to refer to the mining, agricultural, pastoral, and manufacturing statistics of this period, as they will be found in the special chapters treating of the development of these industries.

EIGHTH INDUSTRIAL PERIOD, 1872–1893.

The twenty-two years, 1872–93, forming the eighth industrial period, do not call for such lengthened description as former epochs, seeing that the statistics to be found in various parts of this volume illustrate the details of the progress made. The preceding period closed somewhat tamely. Population was not being attracted to the colony in any large numbers; land was not being taken up by selectors, nor was there any sustained effort to develop the resources of the colony. Railway construction was almost suspended; the expenditure by the Government on public works, either from revenue or from the proceeds of loans, was small; while little private capital found its way to the country. In 1870 the production of gold fell to the lowest point since its discovery, the total output of the year being valued at £931,016; the condition of agriculture gave evidence of little progress, and the land taken up for settlement showed a total of 423,692 acres, or rather less than the figures for 1862. Under such circumstances the industrial conditions could not be said to be hopeful, but causes were at work which were to affect materially the progress of the country.

The production of gold in 1872 reached the respectable total of £1,643,582, due to the development of the Hill End and Tambaroora Mines. The copper-mines, which had not been worked before to any great extent, were now systematically developed; and in the same year the rich tin deposits of the country received attention. The advantage of the colony as a place for settlement was recognized, especially by persons in the southern colonies. Purchases of land from the State proceeded on an extensive scale, and with increased land sales came greater attention to primary industries. Agriculture expanded; and cattle-breeding, which had been losing importance since the Land Act of 1861 came into force, received renewed attention. Nor was sheep-breeding neglected, as might have been expected, in favour of the rival industry, for the price of wool was highly satisfactory to the grower, especially during the five years ending with 1875. These combined causes made the outlook very bright at the beginning of the period.

About the year 1872 public attention was awakened to the necessity of pushing on with the construction of railways, roads, and bridges, to open up the interior of the country, and an expansive public works policy, involving the expenditure of large sums of borrowed money, was accordingly initiated. In the year named the expenditure on public works was £560,931; in 1873, £722,252; and during the next twenty years the average yearly expenditure on public works was—

	£
1874-78	1,565,148
1879-83	3,320,986
1884-88	4,114,984
1889-93	2,489,914

During 1872 the hands employed on public works was probably not more than 3,000; in 1874-78 the yearly average fell little short of 8,000; during the next five years (1879-83) the numbers reached 16,600; in 1884-88, 20,500; and in 1889-93, 12,500. These figures are exclusive of persons permanently employed in the public departments and on the railways.

Coincident with the vigorous construction of public works, and chiefly on the part of graziers desirous of protecting themselves from the incursions of free selectors, there arose a great demand for land, which was readily responded to by the State, and the public lands were bought up with such eagerness that in the five years from 1872 to 1877 the revenue derived from this source increased from £800,000 to over £3,000,000, and the public exchequer was overflowing. Wages were high, employment steady, provisions cheap, and numbers of men, for the most part young and energetic, were attracted to the colony by the alluring prospects held out to them, the annual increment to the population being doubled within a few years. To-keep pace with the demand for labour the Government maintained a vigorous immigration policy, and in the ten years which closed with 1885 nearly 49,000 persons were assisted to these shores from the United Kingdom, and were readily absorbed in the general population. In all likelihood industrial conditions would have improved during this period without any lavish expenditure by the Government, but what was probable was made certain by the favourable combination of circumstances alluded to.

In the following table of average wages for each year from 1872 to 1886 the quotations are classified as daily or weekly, according to the ordinary modes of payment :—

Trade or Calling.	1872.		1873.		1874.		1875.		1876.		1877.		1878.		1879.	
Males, per day, without board and lodging.																
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Carpenters	9	0	10	0	9	0	9	6	10	0	10	8	10	8	10	8
Blacksmiths	9	0	10	0	11	0	10	3	11	0	11	0	10	0	10	0
Bricklayers	9	6	10	0	11	0	11	0	12	0	11	0	11	0	11	0
Masons	9	6	10	0	11	0	11	0	11	0	11	0	10	6	10	6
Plasterers	10	0	10	0	11	0	11	0	12	0	11	6	11	6	11	6
Painters	9	0	9	0	9	0	9	6	9	6	9	6	9	6	9	6
Boilermakers	9	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0
Labourers and navvies	7	0	7	0	7	0	7	0	7	0	7	0	7	0	8	0
Brickmakers (at per 1,000)	...		...		...		...		22	6	22	6	23	9	23	9
Males, per week, with board and lodging.																
Farm labourers	14	0	13	0	14	0	15	0	15	0	15	0	15	0	15	0
Shepherds	14	0	14	0	14	0	15	0	15	0	15	0	14	6	14	6
Females, per week, with board and lodging.																
Housemaids	9	0	10	6	10	6	11	0	11	6	11	6	11	6	11	6
Laundresses	10	6	10	6	13	6	14	0	14	6	14	6	14	6	14	6
Nursemaids	7	6	9	0	9	0	10	0	10	6	10	6	10	6	11	6
General servants	10	0	10	6	10	6	12	6	14	0	14	0	14	0	14	0
Cooks	10	6	13	6	13	6	13	6	16	0	16	0	17	6	18	6

Trade or Calling.	1880.		1881.		1882.		1883.		1884.		1885.		1886.	
Males, per day, without board and lodging.														
Carpenters	10	0	10	0	11	0	11	0	11	0	11	0	9	0
Blacksmiths	10	0	9	6	10	0	10	0	10	0	10	0	9	6
Bricklayers	11	0	11	0	12	6	12	6	12	6	12	6	11	0
Masons	10	6	10	6	11	6	11	6	11	6	11	6	11	0
Plasterers	11	6	11	6	12	0	12	0	12	0	12	6	11	0
Painters	9	6	9	6	11	0	11	0	11	0	11	0	9	0
Boilermakers	9	6	9	6	9	6	9	6	9	6	9	6	10	0
Labourers and navvies	8	0	8	0	8	0	8	0	8	0	8	0	8	0
Brickmakers (at per 1,000)	23	9	23	9	23	9	23	9	23	9	23	9	23	9

Trade or Calling.	1880.		1881.		1882.		1883.		1884.		1885.		1886.	
Males, per week, with board and lodging.														
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Farm labourers	15	0	15	0	17	6	17	6	17	6	17	6	17	6
Shepherds	14	6	14	6	15	0	15	0	15	0	15	0	15	0
Females, per week, with board and lodging.														
Housemaids	11	6	11	6	13	0	13	0	13	0	13	0	13	0
Laundresses	14	6	14	6	17	6	17	6	17	6	17	6	17	6
Nursemaids	11	6	11	6	11	6	11	6	11	6	11	6	11	6
General servants	14	0	14	0	15	0	15	0	15	0	15	0	15	0
Cooks	18	6	18	6	18	6	18	6	18	6	18	6	18	6

An important factor affecting the industrial conditions during the whole period following 1872, which should not be lost sight of, is the importation of private capital. The colony, during the greater part of its history, has been benefited by the introduction of private capital, and in the years prior to 1870 this importation was chiefly in its most acceptable form, being accompanied by the owners. The amount of private money introduced varied somewhat from year to year, but even as late as 1873 it did not exceed half a million sterling. In 1874 money commenced to flow to the colony largely for investment purposes, and during the fifteen years which closed with 1890 the extraordinary amount of forty-four millions sterling was received, £6,228,000 coming in 1885, and £5,392,000 in the following year. It can well be imagined that the influx of so large an amount of private money, joined to the large expenditure by the State, was felt in every branch of industry. As already pointed out, wages rose 25 per cent. in skilled trades, and from 40 to 50 per cent. in unskilled trades, and in some years there was not a man in the colony willing to work who was unemployed. The outlay on public works reached a maximum in 1885, when the expenditure was £5,242,807, but in 1888 it fell to £2,106,027. This meant the throwing out of employment of 15,000 men, and to mitigate the distress consequent on the inability of the community to absorb so much labour suddenly thrust upon it, the Government started relief works, and an expenditure of £387,000 was incurred upon them before they were abandoned.

It will be observed, from the narrative just given, that the largest expenditure by the State occurred in 1885, the same year as that in which the largest amount of private money was brought to New South Wales. From 1885 the import of capital fell off year by year until 1893, when it practically ceased, so that the withdrawal of the State from the labour market was not mitigated by the support given by private capital. The following is a statement of the average import of private capital per annum in five-year periods, commencing with 1874 :—

	£
1874–78	1,728,600
1879–83	1,997,200
1884–88	4,039,400
1889–93	1,869,000

The three last years of the fourth period showed—

1891	1,338,000
1892	1,667,000
1893	115,000

There can be no doubt that during many years the amount of capital, both public and private, brought to the colony was much larger than could be profitably absorbed, and no small portion of it was necessarily devoted to purposes purely speculative, as evidenced in the unreal value which some forms of property acquired. There was, however, an evil of greater consequence than a temporary inflation of values. It will be readily conceded that the introduction of capital within the limits of absorption and the application of it to productive purposes are conducive to true progress, while on the contrary the over-introduction of capital, however applied, means arrested progress. Of the twenty-two years comprising the eighth industrial period, 1885 and 1886 witnessed the largest introduction of capital, viz., £11,470,807 in the former, and £10,028,952 in the latter year. It is, therefore, not astonishing to find that the value of domestic produce exported in those two years when compared with population was less than in any other year in the period under review. The reader who is interested in pursuing this question will find ample food for reflection in the part of this work dealing with the export trade.

In spite, however, of the drawbacks just indicated, flowing from an unnecessary and at times a wasteful expenditure of public money, and the introduction of private money beyond its requirements, the colony made substantial progress. At no period, except in the five golden years, 1853–7, were wages so high, and in no period was the purchasing power of money so great. The tide of improvement had reached its highest level during the years 1882–85, and began to recede in 1886, when employment became difficult to obtain and wages began to fall. In 1886–87 work in some of the southern district collieries was suspended for nearly twelve months by strikes and disputes ; in 1888 the coal-miners of the northern district were on strike for several months ; in 1888 and 1889 the completion of various large public works threw out of employment some 12,000 men—no inconsiderable proportion of the unskilled labour of the country—and large numbers of unemployed were congregated in and around Sydney ; in 1890 the maritime and pastoral industries were disturbed by strikes and disputes very hurtful to the community in general, and to the working classes in particular; and in 1892 another disastrous strike occurred, causing the silver mines of Broken Hill to remain idle for fully three months.

Up to the end of 1891 there was little reduction in the nominal rate of wages in skilled trades, though for unskilled labour the rates experienced a decided decline. In 1893 there was a heavy fall all round, and the second half of that year marks the beginning of a new industrial period under vastly changed conditions, which will be referred to later on :—

Trade or Calling.	1887.	1888.	1889.	1890.	1891.	1892 and first half 1893.
Males, per day, without board and lodging.						
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Carpenters	9 6	10 6	11 0	9 6	9 6	9 6
Blacksmiths	10 8	9 8	8 6	8 6	9 8	9 8
Bricklayers..................	11 6	10 6	11 0	10 0	10 0	10 0
Masons.........................	10 6	10 6	11 0	10 0	10 0	9 8
Plasterers	11 0	11 0	10 6	10 6	10 0	10 0
Painters	9 0	9 0	9 6	9 6	9 6	9 0
Boilermakers	10 2	9 0	10 0	10 0	9 8	10 2
Labourers and Navvies...	8 0	8 0	8 0	8 0	8 0	6 7
Males, per week, with board and lodging.						
Farm labourers	17 8	17 8	15 4	15 4	15 4	13 6
Shepherds	15 4	15 4	......	......	......	......
Females, per week, with board and lodging.						
Housemaids	13 6	13 6	14 0	14 0	14 0	10 0
Laundresses	18 8	18 8	18 0	18 0	18 0	14 0
Nursemaids..................	11 4	11 4	8 6	8 6	8 6	8 6
General servants	16 8	13 6	14 0	14 0	14 0	11 6
Cooks	21 0	21 0	25 0	25 0	25 0	14 0

NINTH INDUSTRIAL PERIOD.

It is idle to speculate as to what would have been the course of industrial history had the banking crisis of 1893 not occurred. It may, however, be mentioned that wages had shown signs of falling before the suspensions took place. Between the first and second half of 1893 there was a fall of about 10 per cent. in the wages of mechanics, and a somewhat greater fall in the wages of unskilled labourers. In 1894 there was no further fall, but employment became more restricted. In 1895, however, there was a still further drop, the wages of the year averaging for skilled workmen 22 per cent. below the rates of 1892, and for unskilled labourers about 17½ per cent. During 1896 wages in several trades rose, and at the beginning of the year 1897 there were some further advances, and generally more regular employment than at any time since the bank crisis; but it is altogether too early to say whether the improvement so far visible is merely temporary or is indicative of the passing away of the industrial depression.

During the period under review there has been a stoppage of nearly all forms of speculative activity; on the other hand, there have been a marked extension of agriculture and important mining developments. From 1891 to 1896 the area under crop was increased by 813,334 acres, and the output of gold by 142,736 ounces. The following were the average wages for the more important trades:—

Trade or Calling.	1893 (second half) and 1894.	1895.	1896.	1897.
Males, per day, without board and lodging.				
	s. d.	s. d.	s. d.	s. d.
Carpenters	9 6	8 0	8 0	8 6
Blacksmiths	8 0	6 8	8 6	9 0
Bricklayers	9 6	8 6	9 0	9 0
Masons	8 6	7 8	9 0	9 0
Plasterers	8 6	7 0	7 0	8 0
Painters	8 0	7 0	7 0	8 0
Boilermakers	9 0	8 0	8 6	10 0
Labourers and Navvies	6 0	6 0	6 0	6 0
Males, per week, with board and lodging.				
Farm labourers	12 6	12 6	12 6	13 6
Females, per week, with board and lodging.				
Housemaids	10 0	10 0	10 0	10 0
Laundresses	14 0	14 0	14 0	14 0
Nursemaids	7 6	7 6	7 6	7 6
General servants	11 6	11 6	11 6	11 6
Cooks	14 0	14 0	14 0	14 0

WAGES IN RELATION TO COST OF LIVING.

For the periods under review in the foregoing pages money wages have alone been dealt with, but it is a matter of much greater importance to ascertain the rate of real wages—that is, the purchasing power of wages in comparison with their nominal value. Such a comparison must necessarily be defective in some respects, since with changing conditions come other forms of labour, and with higher wages greater consumption, so that in comparing present times with days long past there is danger of weighing what is now important against what was formerly of no consequence; notwithstanding this it gives a more exact notion of the value of wages at different periods than can be obtained in any other way. It also affords the only true standard by which material conditions at different times can be accurately gauged. In the following table are compared an ordinary mechanic's wages in money, the level of real wages on the basis of their purchasing power, and the price level of the principal articles of consumption, for each period commencing with the year 1821. It has been thought unnecessary to extend the comparison to the first period of the colony's history, as the conditions of industrial life, shown in the foregoing pages, allowed little play for the operations of economic laws.

Period.	Level of Money Wages.		Price level of principal Articles of Food.		Level of real Wages.	
	1821-37 Wages=1000.	1893-6 Wages=1000.	1821-37 Prices=1000.	1893-6 Prices=1000.	1821-37 Wages=1000.	1893-6 Wages=1000.
1821-1837	1,000	818	1,000	1,548	1,000	528
1838-1842	1,154	943	868	1,343	1,329	702
1843-1852	769	629	502	777	1,531	809
1853-1858	2,400	1,963	1,330	2,058	1,804	953
1859-1862	1,615	1,321	864	1,337	1,869	988
1863-1872	1,461	1,195	687	1,063	2,127	1,124
1873-1892	1,583	1,295	677	1,047	2,338	1,237
1893-1896	1,222	1,000	646	1,000	1,891	1,000

During the years 1821 to 1837 the transportation system was still in full operation, and wage-earners had to compete with bond labour, or with men who, though free, had been so long accustomed to the hard conditions of servitude that a little above a convict ration seemed as much as they could expect to earn; hence the very low level of both real and money wages during the period. During the next series of years, 1838-42, wages rose 15 per cent. and as there was a fall in prices equal to 13 per cent. the level of real wages may be said to have advanced nearly one-third. As will have been gathered from the detailed description in the earlier part of this chapter, this period closed disastrously and wages fell 33 per cent.; as it happened, however, the cost of necessaries fell still more heavily, and real wages were in reality slightly better for the whole period from 1843 to 1852 than previously, although several years showed a condition of things worse than was ever known in the colony's history. When the full force of the discovery of gold began to be felt the depression vanished and wages rose prodigiously, and at one time averaged nearly thrice as much as those now current. Food and other necessaries also advanced, but not to the same extent as wages; so that, estimated by their purchasing power, wages of mechanics were 80 per cent. higher than in 1821-37, 36 per cent. higher than in 1838-42, and 18 per cent. higher than from 1843 to 1852. The years 1854 and 1855, taken by themselves, show a rate, both of real and of money wages, much higher than that indicated for the whole period, and perhaps higher than attained in any other year; but taking the gold era as extending from 1853 to 1858, the level of real wages—that is, their purchasing power—was not greater than in the subsequent period, as the foregoing table shows. From 1853-58 to 1859-62 there was a fall of 33 per cent. in money wages, but prices fell more heavily and the level of real wages actually rose. During the next period there was a further fall in money wages, but not to any great extent; while the drop in prices was heavy, far more than compensating for the fall in wages. During the next period, 1873-92, wages rose and prices fell, so that the level of real wages was far higher than at any other time in the history of the colony. Looked at from the point of view of the manual labourer, the twenty years embraced within this period were in the highest degree satisfactory, and it is hardly likely they will be repeated. As explained in the detailed review of the eighth period, much of the prosperity was due to the adventitious stimulus which the industrial life of the colony received from the borrowing policy which infected not only the Government but all associations for the investment of capital. The colony, after the severe regimen of the banking crisis, and the slow recovery of 1894 and 1895, has at length entered upon a period of development which promises to be more substantial, if less showy, than the latter years of the period 1873–92. The prosperity and contentment of the industrial population is often quoted as the prime test of the progress of a country. In New South Wales from 1884 to 1888, and perhaps in some other years, these very desirable conditions were obtained under circumstances which have laid a lasting debt-obligation on the community, and which indirectly conduced to the crisis of 1893.

The improvement in the lot of farm and station labourers and female servants is still more marked. The rise in wages of male hands has, excepting the period 1843-52, been continuous, while the increase in the pay of females has suffered no interruption, even during the disastrous years preceding the gold discovery. Coincident with the rise of nominal wages which the foregoing table exhibits, there has been a marked advance in the standard of living of the working population of the colony, an advance even more rapid than that of wages. The cheapening of many articles of food and dress which has taken place of late years without a corresponding fall of wages, has enabled the homes of the bulk of the population to be made more comfortable. The acquisition of comforts begets the desire for further comforts, and it is therefore unlikely that any fall in wages will be assented to which will necessitate the labouring classes decreasing the standard of living they now enjoy. In this connection it may be pointed out that the evidence of the savings banks cannot be taken as conclusive of the prosperity or depression of the working population; for if the standard of living indulged in be raised more rapidly than the rate of wages, it is obvious that the margin out of which savings are made will be decreased, although the actual condition of the masses may be materially advanced.

In the foregoing pages the condition of the worker has been considered apart from the value of his production. This latter, however, can by no means be overlooked in a review of the industrial progress of the colony, for it is quite possible that what are commonly called prosperous times may be marked by a neglect of productive pursuits, and be due to uneconomic causes, such as the mortgaging of the resources of future years to feed the present. Something of the kind has taken place in New South Wales, and the existing depression is, in some sense, a reaction against the industrial conditions of former years. On page 125 is given a comparison of the exports of domestic produce over a series of years, reduced to the common level of 1896 prices. From this it appears that, judged by the volume of production—and the exports of domestic produce give a fairly reliable index to production—the lowest point reached during the past twenty-five years was in 1886; but that year was so marked by lavish State expenditure and by the influx of British capital that little attention was paid at the time to the low condition of productive enterprise. Since the year named there has been a remarkable development in the export of domestic produce, brought about by increased attention paid to productive pursuits, the opening up of the silver-mines, and the fortunate succession of favourable seasons. The year 1891 was the point of highest production, both absolutely and relatively, and though the following year was marked by a fall in the values exported, the rates for 1893, 1894,, 1895, and 1896 compare very favourably with other years, and it would certainly appear that notwithstanding the reaction against the inflation of land values so prevalent a few years ago, there is nothing in the circumstances of the colony to warrant the distrust of the future which prevails in certain quarters, and which directly led to the financial scare of 1893.

EMPLOYMENT AND PRODUCTION.

THE population of a country is naturally divided into two broad divisions—breadwinners and dependents. The census returns of New South Wales for 1891 showed on the side of the breadwinners 471,887 persons, of whom 382,385 were males, and 89,502 were females, while the dependents numbered 649,203, comprising 223,285 males and 425,918 females. In addition to these, there were 2,333 males and 531 females unspecified as to occupation, and these figures have been omitted in the following pages. The female worker is very rarely the breadwinner of the family, and the number of persons dependent on such is, therefore, not large; on the other hand, not a few of the female workers styled breadwinners earn less than is needed for their own support, and a rigid classification would require that they should be placed in a division between the breadwinners and dependents, but this is a refinement which cannot now be attempted. It would, however, be reasonable to set the persons dependent on women against those classed as breadwinners who are only partially self-supporting, so that the whole of the dependents may without much error be said to be supported by the male breadwinners. On the 382,385 of the last-named class there were, therefore, 649,203 persons dependent, giving a proportion of 170 dependents to every 100 male breadwinners. The term "dependent" is not altogether a happy one, seeing that under that designation are included married women and others who perform domestic duties, and the term can only be justified on the ground that for such services no money-wages are paid.

BREADWINNERS.

The breadwinners may be subdivided into divisions indicating their status as workers as follows:—

Grade.	Males.	Females.	Total.
Employers	53,403	2,640	56,043
Persons working on their own account	49,482	14,123	63,605
Relatives assisting	8,943	7,526	16,469
Wage-earners	245,175	54,857	300,032
Persons not rightly classified either as employers or wage-earners	6,597	7,517	14,114
Unemployed	18,512	2,810	21,322
Not specified	273	29	302
Total	382,385	89,502	471,887

It may be pointed out that persons who were employed, but who neglected to state whether they were wage-earners or not, have been assumed to belong to the grade of wage-earners; and civil servants and other State employés have been included in the same category.

The employers comprise breadwinners who are assisted in their occupations by paid workers; the wage-earners whom they employ numbered 256,734, being the total stated above less 43,298 who were employed in domestic pursuits and not assisting the breadwinners. The proportion of wage-earners to every 100 employers was, therefore, 458, an average pointing to a very large number of small employers. Persons working on their own account are extremely numerous, and are especially strong amongst the farming classes and those following trading pursuits.

The persons not rightly assignable to any of the three classes just mentioned largely comprise those who derive incomes from sources which cannot be directly related to any occupation, and who are popularly styled as of independent means, the remainder being persons who vaguely described themselves as capitalists, householders, mine-owners, contractors, merchants, and the like.

The relatives returned as assisting do not form a very numerous class. They are mainly found engaged in agricultural pursuits, in which there were 7,617 males and 6,325 females. The fewness of the females is accounted for by the fact that domestic duties take up the whole of their time, and even if such were not the case, the only branch of farming in which their services could be profitably utilised is dairying.

DEPENDENTS.

The dependents may be grouped under four subdivisions:—(*a*) persons employed in household duties without wages, and of these there were 210,799, viz., 210,701 females and only 98 males; (*b*) persons of tender years unable to earn their own livelihood, numbering 235,590, of whom 118,454 were males and 117,136 females; (*c*) relatives and others not performing household duties, who numbered 96,140 males and 94,123 females, in all 190,263; and (*d*) persons dependent on charity, or under legal detention—12,551 persons, viz., 8,593 males and 3,958 females, belonging to this class.

The persons performing household duties without wages are chiefly wives and daughters of breadwinners; the number who could not be so described was 21,909. The relatives and others not performing household duties were for the most part aged persons, the parents or grand parents of the breadwinners. There were, however, some young persons returned under this category, these comprising daughters or wives who could not be classed as performing domestic duties, or who desired not to be so described. The larger portion of the persons dependent on charity were living in public institutions, and, classed according to age, were as follow :—

Age Groups.	Males.	Females.	Total.
Under 5 years	187	151	338
5 years and under 15......	929	849	1,778
15 ,, ,, 20......	257	307	564
20 ,, ,, 25......	523	279	802
25 ,, ,, 45......	2,850	1,073	3,923
45 ,, ,, 65......	2,133	826	2,959
65 and upwards	1,701	460	2,161
Age not stated	13	13	26
Total	8,593	3,958	12,551

The indigent people of 65 years and upwards numbered 2,161 ; the total number of persons in the colony of these ages was 28,365, so that it may be said that out of every 100 persons who reach 65 years, 8 will enter the asylums for the destitute.

AGES OF BREADWINNERS AND DEPENDENTS.

The record of the ages of the workers is interesting chiefly as showing the employment of young people. The number of children under 15 years who were employed was 12,437, of whom 8,612 were males and 3,825 females, the majority of each sex being in their fifteenth year. So far as can be estimated, there were not more than 1,500 children of 13 years and under employed in the colony. This is a natural result of the compulsory clauses of the Public Instruction Act, which require the attendance, unless with valid excuse, of all children from 6 to 14 years for a term of 70 days in each half-year.

Reference has already been made to the number of dependents compared with the breadwinners. Still more interesting is the grouping of the dependents and breadwinners under ages. The following figures refer to males only :—

Age Groups.	Bread-winners.	Dependents.	Total.	Dependents per thousand persons in each age group.
Under 15 years	8,612	209,302	217,914	960
15 years and under 20	48,078	5,461	53,539	102
20 ,, ,, ,, 25	56,521	771	57,292	13
25 ,, ,, ,, 45	178,626	2,987	181,613	16
45 ,, ,, ,, 65	75,686	2,259	77,945	29
65 years and upwards	14,069	2,458	16,527	149
Not stated	793	47	840	56
Total............	382,385	223,285	605,670	369

The age group in which the least number of dependents is found is that from 20 to 25, where the proportion per thousand is only 13. The proportion increases to 16 from 25 to 45, to 29 from 45 to 65, and to 149 per thousand persons over 65 years of age. This gradation agrees somewhat with the ascertained rate of sickness referred to in the chapter relating to Vital Statistics, and it is a very probable assumption that the dependency of males, when not caused by criminality, is due to conditions of health. With females it is otherwise, as will be seen from the following table. Under the category of dependents are included wives and daughters performing domestic duties, and children of naturally dependent ages; and, as the table shows, the proportion of dependents decreases with the progressive ages. The explanation of this will be found in the fact that the number of widows and deserted wives is largest at the older ages while the number of single women compelled to rely entirely on their own earnings is also greater :—

Age Groups.	Bread-winners.	Dependents.	Total.	Dependents per thousand persons in each age group.
Under 15 years............	3,825	209,333	213,158	982
15 years and under 20...	23,249	30,869	54,118	570
20 ,, ,, ,, 25...	21,015	31,997	53,012	604
25 ,, ,, ,, 45..	26,680	105,246	131,926	798
45 ,, ,, ,, 65...	11,487	39,912	51,399	777
65 years and upwards...	3,168	8,384	11,552	726
Not stated	78	177	255	694
Total...............	89,502	425,918	515,420	826

The number of women following gainful pursuits was 89,502, and of these 85,677 were of the age of 15 years and upwards. The total number of women of these ages was 302,262, so that 28·3 per cent. of women over 15 years of age were breadwinners. If these figures be compared with the proportions obtaining in other countries, they will be found to be very small, and must certainly be looked upon as evidence of the superior lot of the Australian women. In most European countries even the married women are compelled to work for such wages as they can procure, in order to assist in the support of their families, but fortunately the necessity for such labour is not yet general in this colony.

Amongst women there is a marked absence of combination for trade purposes, and to this must be attributed most of the evils which attend women's industrial work. In some trades women are fairly well paid, but in others the current pay for a reasonable day's work is far below the sum actually required to maintain a respectable life, so that women who have no assistance from relatives are sometimes compelled to make astonishing sacrifices to enable them to live at all. This undue lowering of wages, as already pointed out, is indirectly due to want of combination, but is also greatly influenced by the competition of other women, chiefly wives, who are not solely dependent upon their own earnings for support, and who, therefore, are in a position to undersell their less fortunately situated sisters.

Occupations of the People.

The occupations of the inhabitants of the colony were ascertained at the census of 1891, and were classified on a uniform system adopted at the Census Conference held at Hobart prior to the enumeration. The method of classification adopted by the Australasian colonies at the previous census was based on the English classification of 1881, which was both unscientific and unsatisfactory.

As already explained, the population is divided into two great divisions—breadwinners and dependents. The former are arranged in the natural classes of primary producers and distributors, and these again into their various orders and sub-orders. Dividing the population into the seven classes, and excluding 2,333 males and 531 females who did not state their occupation, the number falling under each was as follows:—

Class.	Occupation.	Persons.	Males.	Females.
I	Professional—Embracing all persons, not otherwise classed, mainly engaged in the Government and defence of the country, and in satisfying the intellectual, moral, and social wants of its inhabitants	31,491	21,089	10,402
II	Domestic—Embracing all persons engaged in the supply of board and lodging, and in rendering personal services for which remuneration is usually paid	55,867	17,659	38,208
III	Commercial—Embracing all persons directly connected with the hire, sale, transfer, distribution, storage, and security of property and materials, and with the transport of persons or goods, or engaged in effecting communication	86,629	81,291	5,338
IV	Industrial—Embracing all persons not otherwise classed, who are principally engaged in various works of utility, or in specialities connected with the manufacture, construction, modification, or alteration of materials so as to render them more available for the various uses of man, but excluding, as far as possible, all who are mainly or solely in the service of commercial interchange	140,451	122,650	17,801

Class.	Occupation.	Persons.	Males.	Females.
V	Agricultural, pastoral, mineral, and other primary producers—Embracing all persons mainly engaged in the cultivation or acquisition of food products, and in obtaining other raw materials from natural sources	147,026	134,908	12,118
VI	Indefinite—Embracing all persons who derive incomes from services rendered, but the direction of which services cannot be exactly determined	10,423	4,788	5,635
VII	Dependents—Embracing all persons dependent upon relatives or natural guardians, including wives, children, and relatives not otherwise engaged in pursuits for which remuneration is paid, and all persons depending upon private charity, or whose support is a burthen on the public revenue	649,203	223,285	425,918

It is a matter greatly to be regretted that no exact comparison can be made between the occupations of the people in 1891 and at previous census periods. The tabulation for 1881 fortunately distinguished between workers and dealers, but some large divisions of workers were entirely ignored or placed with others to whom they were in no sense allied, and the separation cannot now be made. The following broad groups show the manner in which the employments were distributed in 1881 and 1891, but the classification cannot in any sense be regarded as perfect. The figures relate to males only, and 3,048 and 2,333 whose occupation was not returned, are omitted in 1881 and 1891 respectively :—

Occupation.	1881.		1891.	
	Number.	Proportion per cent.	Number.	Proportion per cent.
Professional	11,546	2·83	21,089	3·48
Domestic	12,689	3·11	17,659	2·91
Commercial	41,441	10·15	81,291	13·42
Industrial	97,293	23·84	122,650	20·25
Primary producers	96,091	23·55	134,908	22·28
Indefinite	3,631	0·89	4,788	0·79
Dependents	145,410	35·63	223,285	36·87
Total	408,101	100·00	605,670	100·00

The proportions in the foregoing table refer to the whole population ; a more useful comparison is perhaps afforded by taking the wage-earning population only. Comparing, on this basis, the proportions employed at each period, it will be found that there has been a slight falling off in the proportion of persons engaged in domestic pursuits, for while the total so employed has increased from 12,689 to 17,659, the percentage has fallen from 4·83 to 4·62 of the total workers. The industrial class has apparently declined from 37·04 to 32·08 per cent., and so far as can now be estimated the falling off has been in the proportion of unskilled workers. Agricultural and pastoral pursuits afforded employment in 1881 to 77,698 persons as compared with 98,748 in 1891; but the proportion to the whole workers would appear to have declined from 29·58 to 25·82 per cent. On the other hand, the commercial class increased from 15·78 per cent. of the working population to 21·26 per cent., and the mining population from 7·00 to 8·09 per cent. For reasons already given, these comparisons must not be too closely insisted upon.

In 1881 only 54,963 females were returned as wage-earners, and of these 25,000, or 45·49 per cent., were following domestic pursuits, and 10,326, or 18·79 per cent., industrial; as compared with 89,502 female wage-earners in 1891, of whom 38,208, or 42·69 per cent., were engaged in domestic pursuits, and 17,801, or 19·89 per cent., were industrial workers. The greatest change in the two years has been in the number of professional women; these numbering only 4,288, or 7·80 per cent. of the workers, in 1881, as against 10,402, or 11·62 per cent., in 1891. Few women were engaged at the time of either census in agricultural, pastoral, or other occupations of a like character. The following are the classified figures for the two census periods, omitting 2,846 and 531 not stated in 1881 and 1891 respectively:—

Occupation.	1881.		1891.	
	Number.	Proportion per cent.	Number.	Proportion per cent.
Professional	4,288	1·27	10,402	2·02
Domestic	25,000	7·41	38,208	7·41
Commercial	4,194	1·24	5,338	1·04
Industrial	10,326	3·06	17,801	3·45
Primary producers	8,905	2·64	12,118	2·35
Indefinite	2,250	0·67	5,635	1·09
Dependents	282,510	83·71	425,918	82·64
Total	337,473	100·00	515,420	100·00

It does not appear that there has been any displacement of male by female workers during the decade; it is true that the proportion of females engaged in gainful occupations has increased from 16·9 per cent. to 18·1 per cent. of the total persons employed, but this increase is due rather to the greater opportunities offering than to the displacement of persons already employed. In professional pursuits the proportion of females has increased from 27·1 in 1881 to 31·7 per cent. in 1891; in domestic pursuits, from 66·3 to 68·4 per cent.; and in industrial pursuits, from 9·6 to 12·7 per cent. In the other two great classes the proportion has fallen, as the following table shows:—

Class of Occupation.	1881.		1891.	
	Males.	Females.	Males.	Females.
Professional	72·9	27·1	68·3	31·7
Domestic	33·7	66·3	31·6	68·4
Commercial	90·8	9·2	93·8	6·2
Industrial	90·4	9·6	87·3	12·7
Primary producers	91·5	8·5	91·8	8·2
All Occupations......	83·1	16·9	81·9	18·1

In the special chapters devoted to agriculture, pastoral pursuits, and mining, details are given which illustrate the progress and present condition of these important industries. No further reference to them is, therefore, needed in this chapter.

MANUFACTORIES.

There is no Act in force in the colony at present which makes it imperative for proprietors of factories and works to supply to the Statistician an annual return of their operations; but, although incomplete for statistical purposes, some very valuable information will in the future be obtained under the new Factories and Shops Act, which provides that every employer affected by the Act shall, if required, furnish the fixed rate of wages, or remuneration for piecework, payable to every person in his employ either inside or outside the factory. The Act, which also compels the employer to keep a record of the names and ages of his employés, distinguishing those under 18 years from older workers, came into force on the 1st January, 1897. So far its operations are confined to certain proclaimed districts, but its provisions will ultimately be extended to the whole colony. At the present time particulars of the operations of factories and works are withheld in very few cases, and where they are not given it is the duty of the collector, who is usually a person possessing special knowledge of the district, to make up to the best of his ability an estimate of the employment afforded by the firm which refuses to furnish the information. Any temptation, on the one hand, to show a greater volume of business than is actually transacted during the year is reduced to a minimum by the fact that to do so would not benefit a person in any way, as no individual figures are disclosed; and, on the other hand, a tendency to show a smaller amount of business than is actually the case is guarded against by the scrupulous care taken to prevent disclosure of the contents of a schedule, and the pledge of the Statistician that under no circumstances shall such a document ever be used in connection with any system of taxation.

The method of collecting the returns is to supply the police with a number of blank forms, one of which is left with the proprietor or manager of each factory or work. This is filled up by the person in charge, and given to the police, who send it to the Statistician. The figures are carefully examined in the Statistical Office, and, if necessary, compared with the returns of preceding years; and, in the event of the scrutiny disclosing any apparent inaccuracy, the proprietor of the work is communicated with on the subject. In tabulating the schedules, only those factories and works which have been kept going all the year round are included, with the exception of sugar-mills, which are accepted if they have been working for at least six months out of the twelve. Establishments which do not use mechanical power were formerly excluded unless they employed at least five hands; but, beginning with the year 1896, the minimum in such cases was reduced to four, in order to secure uniformity with Victoria. All works and factories in which machinery is used are included, as it is obvious that an establishment where only two or three men are employed to look after machinery may turn out a greater quantity of work than another in which the services of a much larger number of men, unassisted by mechanical power, are utilised. Another change made in 1896 with the object of placing the statistics on a uniform basis with those of the sister colony, was the inclusion of dressmakers and milliners, who were not enumerated before that date. A third change consisted in the exclusion from the returns of certain blacksmiths partly engaged in jobbing work, and not coming under any specific heading.

Glancing at the table which is given below, it will be seen that until 1892 the statistical year was not coincident with the calendar year, the returns being collected for the twelve months ending with March; but from the year named the annual period begins on the 1st January and ends on the 31st December. The figures are, of course, subject to those slight deviations which are incidental to the collection and compilation of most branches of statistics; but when this is borne in mind they may be accepted as being on the same basis until 1896. The only periods for which explanations are necessary are 1892 and 1896. In 1892 the statistics were collected under the Census and Industrial Returns Act, and as originally published were not on the same basis as those for other years, a number of workers who did not usually come within the scope of the returns having been included. These comprised dressmakers and milliners; biscuit-makers, who were also employed in the baking of bread; tailors, who were also retail clothiers; manufacturers of slop clothing employing less than ten hands; blacksmiths whose work consisted chiefly in effecting repairs; and plumbers working for themselves. As they are now presented, however, the figures for 1892 have been brought into line with those for other years. Beginning with the year 1896, the factory returns of the colony, as explained above, were placed upon a new basis, in terms of an agreement arrived at by the Victorian and New South Wales Statistical Offices, with the object of enabling a fair comparison to be made between the industries of the two colonies.

Although New South Wales cannot be considered an important manufacturing country, this source of national wealth has by no means been neglected. During the year 1896 there were 3,106 manufactories or works of various descriptions, employing altogether a total of 49,055 hands, of whom 42,791 were males, and 6,264 females. 2,118 of these works had machinery in operation of a total capacity of 44,839 horse-power, of which 33,253 horse-power was actually used during the year; the plant in all works was valued at about £5,535,905. The average value of plant per establishment was £1,782; and the average horse-power 21·2, of which 15·7 was actually used. The hands per factory averaged 16, the average in the metropolis being 24, and in the country about 11. Compared with the scale on which manufactories are worked in the older countries of the world, these figures appear very small, but they should evoke no surprise when the nature of the works and the sparseness of the population throughout a large portion of the colony are taken into consideration:—

Year.	Number of Hands employed.			Year.	Number of Hands employed.		
	Males.	Females.	Total.		Males.	Females.	Total.
1886-87	40,160	3,367	43,527	1892	41,298	2,970	44,268
1887-88	39,365	3,686	43,051	1893	36,412	2,506	38,918
1888-89	41,299	4,265	45,564	1894	39,529	3,222	42,751
1889-90	40,725	4,264	44,989	1895	39,987	3,846	43,833
1890-91	41,582	4,553	46,135	1896	42,791	6,264	49,055

Of the increase of 5,222 hands in 1896 shown in the table, the change in the basis of compilation was responsible for 3,833, namely, 1,114 males and 2,719 females. The net increase in the hands employed in these industries during the year may, therefore, be set down at 1,389.

The figures in the foregoing statement represent the number usually employed; but besides these there are other hands whose employment is casual. Thus, in 1896 the average number of persons finding employment was 49,055, whereas the greatest number employed was 57,747, the excess comprising 7,023 males and 1,669 females, in all 8,692. The maxima of the different industries, as might be naturally expected, fell at various periods during the year, so that the whole number of 57,747 were not employed at any specific time in the various industries dealt with under the classification of manufactories and works, and it is probable that the greatest number employed at any one time did not in reality exceed the usual number of persons for whom employment was found by more than 5,800. Much the same condition of things obtained in other years, and it may be accepted that in the busy seasons of the year one-eighth more hands are employed than the average of the whole twelve months.

The table given below, in which the hands employed are divided into eleven classes, shows the average number of persons employed in each class during the past ten years. As before explained, the figures for 1896 have been compiled on a new basis, for comparison with Victoria. The classes principally affected are Nos. III and VIII, to the first of which 3,686 hands were added by the change of system, and to the second, 136 hands. Keeping these alterations in view, a comparison over the ten years discloses the fact that the progress made has been very slight—in some classes, indeed, a backward tendency having been evinced. For instance, in Class III (clothing and textile fabrics) there were 5,532 hands employed, while in 1896, on the same basis, there were only 5,190. In Classes IV, VII, and IX there were also decreases during the decade. A detailed analysis—too voluminous, however, to be given in a work of this kind—would show that the greatest progress has been made in domestic industries—that is to say, in the industries which naturally arise from the circumstances of the population, and in those connected with the preparation of perishable products; and in metal works, due principally to the extension of the smelting industry. The total number of hands set down in the table as having been employed in 1896 is the largest during the decade; but when allowance is made for the change in the basis of compilation, it is found that higher totals were reached in 1888-9 and 1890-1 :—

Class of Industry.	Number of hands employed.									
	1886-7	1887-8	1888-9	1889-90	1890-91	1892.	1893.	1894.	1895.	1896.
I. Treating raw materials, the product of pastoral pursuits	2,637	2,114	2,328	2,422	2,046	1,983	3,045	4,020	3,642	3,552
II. Connected with food and drink, or the preparation thereof	8,063	8,543	7,417	8,244	7,726	6,959	7,243	7,254	8,840	9,538
III. Clothing or textile fabrics	5,532	5,577	5,729	5,518	6,005	4,398	4,508	5,394	6,014	8,876
IV. Building materials	8,275	7,384	7,675	6,982	7,712	7,648	5,709	6,176	5,571	5,846
V. Metal works, machinery, etc.	7,219	7,701	8,986	8,211	10,236	9,760	6,686	7,373	7,745	8,704
VI. Shipbuilding, repairing, etc.	1,077	791	1,061	1,225	1,075	1,506	1,390	1,505	1,035	1,132
VII. Furniture, bedding, etc.	1,380	1,323	1,477	1,424	1,234	1,048	637	794	772	1,167
VIII. Paper, printing, binding, etc.	3,659	3,771	4,378	4,688	4,200	4,494	4,138	4,284	4,731	4,938
IX. Vehicles, harness, and saddlery	2,422	2,388	2,545	2,475	1,969	2,551	1,375	1,548	1,389	1,588
X. Light, fuel, and heat	745	933	1,299	1,414	1,545	1,895	1,976	1,683	1,424	859
XI. Miscellaneous	2,518	2,526	2,659	2,386	2,387	2,026	2,211	2,720	2,670	2,855
Total hands employed	43,527	43,051	45,564	44,989	46,135	44,268	38,918	42,751	43,833	49,055

Maintaining the same broad classification as before, the division of the employés into grades discloses interesting results. About 9 per cent. of the persons employed in 1896 were managers or overseers, and 3 per cent. clerks. The number of persons working as engineers, etc., apart from the manufacturing operations, was 1,609, giving a proportion of over 3 per cent., while 6 per cent. were employed as carters, messengers, etc. The following are the figures of each class:—

Description of Industries.	Managers and Overseers employed.	Clerks employed.	Engineers, etc., employed.	Workers in Factory, Mill, etc.	Carters, Messengers, etc.	Total.
Treating raw material, the production of pastoral pursuits	307	56	145	2,848	196	3,552
Preparing materials used as food or drink	953	428	539	6,771	847	9,538
Clothing and textile industries	583	112	26	8,032	123	8,876
Manufacture of building materials	795	179	358	3,663	851	5,846
Metal and machinery works	424	197	217	7,600	266	8,704
Shipbuilding, repairing, etc.	42	22	22	999	47	1,132
Furniture and bedding works	127	19	7	982	32	1,167
Paper, printing, binding, and engraving	531	315	46	3,859	187	4,938
Vehicles, harness, and saddlery	220	20	6	1,327	15	1,588
Light and heat	89	44	170	536	20	859
Miscellaneous	305	107	73	2,215	155	2,855
Total	4,376	1,499	1,609	38,832	2,739	49,055

Child labour is very little employed in the factories of the colony. This is what might be expected, seeing that by the law regulating primary education children are required to attend school until they reach their fourteenth year. It was found at the Census of 1891 that in all occupations only 8,612 males and 3,825 females under 15 years of age were employed; in 1896 the total number working in factories was 693, viz., 543 males and 150 females. These last figures may, however, be taken as only approximate, and it is not improbable that, owing to the remarkable reluctance of female apprentices and improvers to state their ages, the number is under the truth.

There has been some tendency for the number of hands employed in the metropolitan district to increase faster than those in the other portions of the colony. The facilities for the establishment of large industries in and around Sydney are considerable—a commanding position as regards communication with the outside world, propinquity to the coal-fields, easy communication with the chief seats of raw production in the colony, density of the population, and abundant water supply—these have tended to centre in the metropolitan district all the chief industries. In the extra-metropolitan districts the principal works are saw-mills, smelting works, sugar-mills, and flour-mills, or industries of a domestic character intended to meet a day-to-day demand, or for the treatment of perishable goods.

The following table shows the number of hands employed in the metropolitan district as compared with the remainder of the colony for the past ten years ended with 1896 :—

Year.	Hands employed.		Year.	Hands employed.	
	Metropolitan District.	Other Districts.		Metropolitan District.	Other Districts.
1886-87	24,900	18,627	1892	24,128	20,140
1887-88	24,199	18,852	1893	22,672	16,246
1888-89	25,885	19,679	1894	24,934	17,817
1889-90	24,999	19,990	1895	25,287	18,546
1890-91	28,058	18,077	1896	28,346	20,709

There is a vast field open for the development of manufactures in New South Wales. Producing, as it does, the raw material of various kinds necessary for supplying the primary wants of civilization, it is evident that the colony must ere long find a way into some parts of this field. The one great cause which has hitherto operated to prevent the larger development of manufactures is the impossibility of drawing from a population so small and so widely scattered a fair profit on the capital required to carry them on. Hitherto the chief employment found for labour and capital has been in the primary productive industries, and these industries continuing to be profitable and population to increase, whenever the prospect of profit presents itself, manufactures, adapted to the conditions as well as to the wants of the country, will naturally establish themselves, affording other investments for capital, and avenues for the employment of labour.

PREPARATION OF RAW MATERIALS.

Below will be found a table showing the number of works devoted to the preparation of raw materials, the product of pastoral pursuits. The amount of employment offering in these works is, of course, not a little affected by the seasons :—

Description of Works.	Number of Works.	Average number of Hands employed.						Horse-power of Plant or Machinery.	Approximate Value of Plant or Machinery.
		Managers and Overseers.	Clerks, &c.	Engine-drivers, &c.	Workers in Factory, Mill, &c.	Carters, Messengers, &c.	Total.		
									£
Boiling-down	36	47	9	34	486	75	651	830	36,534
Glue and Oil and Grease	2	2	1	..	6	..	9	14	350
Manures	8	11	1	4	21	8	45	93	7,340
Tallow Refineries	4	4	2	4	15	14	39	61	3,600
Tanneries	109	131	15	32	992	41	1,211	865	64,485
Wool-washing and Scouring	77	112	28	71	1,328	58	1,597	1,210	78,545
Total	236	307	56	145	2,848	196	3,552	3,073	190,854

Boiling-down and wool-washing works confined to station use have not been included in the above table. The number of hands given is the average at work throughout the year, but at certain seasons many more persons are at work, especially at wool-washing. As would naturally be anticipated, women do not find much employment in the industries comprised in the foregoing category, the total employed being only six. The number of children employed is also small—namely, twenty-five, all males. The production of tallow is an important industry, the quantities manufactured in 1894 and 1895 being far larger than the production of any previous year. The rise in prices which occurred during 1892 induced pastoralists to slaughter and boil down part of their surplus stock, especially the old ewes, and although the price of tallow has fallen since then, the production has increased enormously. During 1894 the export reached the large figure of 847,236 cwt., a quantity greatly in excess of that exported in any previous year, and the slight decrease in the exports during 1895 was more than counterbalanced by the large increase in local consumption. In 1896, however, the production fell to 570,983 cwt., the lowest quantity produced since 1893. The following statement gives the estimated quantity of tallow made in the colony, distinguishing the amount locally consumed from that exported :—

Year.	Estimated quantity of New South Wales Tallow.		
	Exported.	Locally consumed.	Produced.
	cwt.	cwt.	cwt.
1886–87	99,451	110,850	210,301
1887–88	191,791	143,501	335,292
1888–89	174,321	175,840	350,161
1889–90	151,491	141,480	292,971
1890–91	223,618	123,080	346,698
1892	313,331	123,053	436,384
1893	657,591	183,065	840,656
1894	847,236	221,864	1,069,100
1895	794,920	282,295	1,077,215
1896	404,054	166,929	570,983

PREPARATION OF FOOD PRODUCTS.

The establishments connected with the preparation of food and drink form one of the largest classes of works in New South Wales. In many places which come under this heading, and from which returns were received, the number of hands employed is small, owing to the nature of the operations carried on, although the output may be considerable; this remark applies particularly to butter factories :—

Description of Manufactory or Work.	Number of Establishments.	Average number of Hands employed.						Horse-power of Plant or Machinery.	Approximate Value of Plant or Machinery.
		Managers and Overseers	Clerks, &c.	Engine-drivers, &c.	Workers in Factory, Mill, &c.	Carters, Messengers, &c.	Total.		
									£
Aerated Waters	158	188	32	17	584	157	978	1,148	63,591
Bacon	10	15	2	2	38	6	63	57	4,810
Biscuits	5	11	18	8	396	12	445	42	32,700
Breweries	57	87	63	46	472	123	791	1,122	167,509
*Butter	140	160	40	73	309	52	634	1,272	97,173
Cheese	15	17	5	2	86	3	113	194	5,432
†Condiments, Coffee, and Spices	22	38	45	8	433	44	568	72	28,758
Confectionery	17	20	17	6	379	53	475	91	18,622
Cornflour	5	8	3	6	33	8	58	391	10,900
Creameries	152	160	11	32	107	29	339	920	65,972
Flour	81	104	71	89	362	95	721	3,448	241,385
Ice and Refrigerating	32	56	59	120	718	94	1,047	2,797	264,070
Jam and Fruit-canning	12	20	14	13	389	16	452	232	9,965
Meat Preserving and Curing	13	14	14	18	880	45	971	620	20,220
Sugar Mills	23	52	30	86	1,206	101	1,475	3,486	554,377
Sugar Refineries	1	1	3	11	368	8	391	440	172,065
Vinegar	2	2	1	2	11	1	17	4	650
Total	745	953	428	539	6,771	847	9,538	16,336	1,758,199

* Including 1 butterine factory. † Including 1 condensed milk factory.

Included with the foregoing figures are 21 female overseers or managers, 5 clerks, 635 workers in the factory, and 14 persons working outside factory—in all, 675 females, of whom 23 were children. In such establishments as aerated water factories, breweries, butter and cheese factories, flour and sugar mills, and jam factories, there is a large fluctuation in the amount of labour employed, in some seasons many more people being engaged than in others. Taking the whole of the above works, for a portion of the year there are probably fully 1,500 more hands employed than are given in the table.

The brewing industry has been stationary since 1886, when an excise of 3d. per gallon was imposed on the local manufacture of beer. It is open to question, however, whether the falling off in production, in comparison with the growing population, is due to this cause, as there is evidence that the depression which marked the trade of the different colonies during the year immediately preceding 1886

ught about a lessened demand for all forms of alcoholic liquors.
invoice value of ale and beer imported, and on which duty was
l, during 1896, was £246,625—not a very large amount consider-
that £163,801 of it was for beer in bottle, which the colonial
weries are only now attempting to produce on any extensive scale.
following table illustrates the present position of the brewing and
lling industry and its progress during the last ten years; the
ntity manufactured in 1886–87 must be accepted as approximate
y, and those given for the next four years, during which period the
istical year did not coincide with the calendar year, represent the
ntities on which excise was paid during 1888, 1889, 1890, and 1891
pectively :—

Year.	Hands Employed.	Manufacture of Ale, Beer, etc.
	No.	gallons.
1886–87	987	10,000,000
1887–88	804	9,300,200
1888–89	850	9,515,200
1889–90	826	9,619,600
1890–91	793	10,594,020
1892	745	10,807,200
1893	685	9,753,200
1894	744	9,508,400
1895	848	9,821,840
1896	791	10,177,360

he growth of sugar-cane in the northern districts of the colony,
the manufacture of sugar therefrom, have now become important
ustries, the output in 1896 being 571,140 cwt. of sugar and 2,520,580
ons of molasses. Since 1887 there has been a considerable increase
the area of land planted with sugar-cane, and in the year ended
rch 31, 1897, there were 31,053 acres under this crop, of which
94 acres were productive. In 1877–8 the number of sugar-mills
50, of which 24 used steam-power, whilst 26 were worked by
le, and the number of workmen employed was 1,065. These had
eased in the year 1885–86 to 83 steam-mills and 19 worked by
le, whilst the number of men employed and the quantity of sugar and
asses turned out had correspondingly increased; but since that time
fall in the value of sugar has caused the closing of many of the
ller establishments, and the cane grown has been to an increasing
ent sold to the large factories, which pay to the growers a price
slightly below that given prior to 1885. Almost everywhere the
dency to concentrate the manufacture of sugar in large central
blishments is increasing. In the West Indies and elsewhere small
ls are rapidly disappearing to make room for larger establishments,
re business is strictly confined to the industrial process of sugar

making, the planters attending solely to the cultivation of the cane. The following shows the particulars of the sugar industry for the last ten years :—

Year.	Sugar Mills.		Horse-power.		Manufacture of—		Hands Employed.
	Worked by Steam.	Otherwise Worked.	Steam.	Other.	Raw Sugar.	Molasses.	
	No.	No.			cwt.	gallons.	No.
1886-87	57	7	2,531	21	275,000	507,000	2,259
1887-88	57	7	2,210	26	450,000	880,000	2,646
1888-89	36	......	1,995	...	225,580	241,088	1,640
1889-90	38	2	3,034	10	380,320	494,145	2,194
1890-91	31	2	*	*	530,660	1,074,080	1,621
1892	24	1	3,594	70	485,780	789,230	1,468
1893	25	3	3,244	16	478,605	1,079,940	1,392
1894	23	2	3,476	*	452,756	1,573,886	1,174
1895	23	1	3,430	4	444,261	1,427,458	1,415
1896	22	1	3,479	7	571,140	2,520,580	1,475

* Not ascertained.

In addition to the 1,475 hands usually employed in 1896, there were 92 others employed at busy periods, comprising altogether 1,567. It is very possible that casual hands have been included in some of the years shown in the foregoing statement.

There was only one establishment in the colony for refining raw sugar in 1896. The quantity of sugar melted during the year was 866,000 cwt., of which 356,840 cwt. was imported, chiefly from Queensland. The remaining 509,160 cwt. comprised raw sugar produced in New South Wales. The returns relating to sugar refineries for the last ten years are given in the subjoined table :—

Year.	Sugar Refineries.	Hands employed.	Quantity of Sugar melted.	Year.	Sugar Refineries.	Hands employed.	Quantity of Sugar melted.
	No.	No.	cwt.		No.	No.	cwt.
1886-87	2	214	510,000	1892	1	372	772,948
1887-88	1	200	537,900	1893	2	672	805,058
1888-89	1	210	550,149	1894	2	440	756,200
1889-90	1	230	600,000	1895	1	342	801,000
1890-91	1	300	660,000	1896	1	391	866,000

The hands given above as engaged during the year are only those in constant employment ; in addition, there are many men employed for longer or shorter periods in discharging ships, storing sugar, and other work incidental to the trade.

Almost from the introduction of the sugar-growing industry in New South Wales, the manufacture of sugar has been largely in the hands of the Colonial Sugar Refining Company, whose mills on the Clarence, the Richmond, and the Tweed have been referred to in another part of this work. This company also owns the only sugar refinery in the colony, where the produce of their local mills is refined, together with a portion of the output of their factories in Fiji and Queensland.

The amount of mill-power for grinding and dressing grain is ample for treating the flour consumed in the colony; and the close approach of New South Wales to the position of producing sufficient grain for its own requirements will not, therefore, make an increase in the number of flour-mills probable, as those in existence are not kept going to their full capacity. The figures in the following table approximate closely to the actual amount of wheat treated in the local mills:—

Year.	New South Wales Wheat treated.	Imported Wheat treated.	Total Wheat treated.	Total Flour made.
	bushels.	bushels.	bushels.	tons.
1886-87	2,402,057	984,773	3,386,830	67,736
1887-88	4,460,629	233,535	4,694,164	93,883
1888-89	3,975,030	2,238,330	6,213,360	129,445
1889-90	2,442,000	3,255,168	5,697,168	118,691
1890-91	5,049,000	634,008	5,683,008	118,396
1892	3,120,340	883,292	4,003,632	83,409
1893	6,356,260	459,740	6,816,000	142,000
1894	5,426,262	254,010	5,680,272	118,339
1895	5,947,859	358,861	6,306,720	131,390
1896	4,354,224	2,238,576	6,592,800	137,350

Particulars of the flour-mills in operation in the colony for the last ten years are given below:—

Year.	Flour-mills.			Year.	Flour-mills.		
	No.	Horse-power.	Hands Employed.		No.	Horse-power.	Hands Employed.
1886-87	133	2,650	571	1892	72	1,936	568
1887-88	128	2,781	599	1893	87	2,531	699
1888-89	110	2,877	628	1894	83	3,305	696
1889-90	103	2,638	635	1895	87	3,611	678
1890-91	102	2,363	594	1896	81	3,448	721

MANUFACTORIES OF CLOTHING AND TEXTILES.

The third class of industries is connected with the manufacture of clothing and textile fabrics. The different descriptions of works are given below:—

Description of Manufactory or Work.	Number of Establishments.	Average number of Hands employed.											
		Manager and Overseers.		Clerks, &c.		Engine-drivers, &c.	Workers in Factory, Mill, &c.		Carters, Messengers, &c.		Total.		
		M.	F.	M.	F.	M.	M.	F.	M.	F.	M.	F.	Total.
Boots and shoes	82	159	16	33	3	14	2,402	821	51	..	2,659	840	3,499
Clothing	19	28	4	13	2	4	327	826	14	7	386	839	1,225
Dressmaking and Millinery	133	15	175	4	1	2	14	1,526	7	5	42	1,707	1,749
Furriers	3	3	..	..	..	..	17	14	..	..	20	14	34
Hats and caps	5	6	3	2	..	1	13	47	1	..	23	50	73
Oilskin and water-proof clothing	4	7	1	5	..	..	37	93	11	..	60	94	154
Shirtmaking	6	7	..	..	..	..	4	56	..	..	11	56	67
Tailoring	116	139	8	45	1	..	690	935	25	..	899	944	1,843
Woollen cloth	5	12	..	3	..	5	140	70	2	..	162	70	232
Total	373	376	207	105	7	26	3,644	4,388	111	12	4,262	4,614	8,876

Power is not employed to any extent in the industries included in the foregoing class, except in boot factories and woollen mills. In boot factories plant valued at £70,559 is employed, the machinery having a capacity of 428 horse-power; in clothing factories the value of plant is £5,440; and in woollen mills the plant is valued at £24,380, the capacity of the machinery being 170 horse-power.

As a wool-growing country New South Wales is apparently specially adapted for the manufacture of woollen goods, and accordingly that industry was one of the earliest organised in the colony. The endeavour to promote the local manufacture of woollen goods, however, has so far met with little success. Several factories have struggled along for some time, but have made no headway, the largest establishments finding it needful to add to their business the making of slop clothing, by which means they have been enabled to carry on at a profit. The machinery in most of the mills is not of the best kind, and altogether the industry is disappointing.

The following table shows the number of woollen-mills in operation, the number of employés, and the quantity of cloth manufactured during each of the last ten years :—

Year.	Woollen-mills.	Hands Employed.			Quantity of Woollen Cloth manufactured.
		Males.	Females.	Total.	
	No.	No.	No.	No.	yards.
1886–87	8	104	78	182	324,788
1887–88	5	101	71	172	348,000
1888–89	5	117	60	177	241,000
1889–90	5	110	62	172	207,500
1890–91	4	94	61	155	310,000
1892	5	127	58	185	202,088
1893	5	144	59	203	440,500
1894	5	159	62	221	461,000
1895	5	175	67	242	613.500
1896	5	162	70	232	588,015

From these figures it will be noticed that the number of woollen-mills in operation has decreased, and that the five now at work provide employment for 232 persons only. During the years from 1882 to 1884 a considerably greater number of hands were employed. It will be observed that the quantity of woollen cloth which is stated to have been manufactured bears no fixed proportion to the hands employed. The figures are set down from the manufacturers' own returns, and are given for what they are worth.

The employment afforded in the manufacture of boots has kept pace with the growth of population, as will be perceived from the table below. The improved efficiency of the machinery employed is, however, apparent in the increased output :—

Year.	Boot Factories.	Hands Employed.			Boots Manufactured.
		Males.	Females.	Total.	
	No.	No.	No.	No.	pairs.
1886–87	68	1,856	416	2,272	1,881,210
1887–88	60	1,837	436	2,273	2,278,612
1888–89	57	1,618	427	2,045	2,559,980
1889-90	59	1,955	465	2,420	2,196,815
1890-91	60	2,262	544	2,806	2,634,254
1892	66	2,230	478	2,708	2,500,000
1893	54	2,429	661	3,090	2,545,061
1894	68	2,716	704	3,420	2,611,700
1895	66	2,852	891	3,743	2,721,132
1896	82	2,659	840	3,499	2,567,169

From the above figures it will be noticed that there was an increase in the number of hands from 2,272 in 1886–87 to 3,743 in 1895, while the number of establishments was almost the same as it was nine years before. In 1896 the hands decreased in number to 3,499, despite the inclusion for the first time of a number of small factories employing four hands. There appears to be a tendency for large factories to supersede small works, and drive the latter out of competition in this particular branch of manufacture. The average number of hands employed in each factory rose from 33·4 in 1886–87 to 55·2 in 1895, while in 1896, owing to the change in the system of tabulation, the average was only 42·7. The number of pairs of boots manufactured during the latter year was 2,567,169. This quantity is only slightly in excess of that shown in some of the preceding years, when a much smaller number of hands was employed. A comparison simply by pairs manufactured, however, is not altogether satisfactory. The description of boot made has very greatly improved of late years, and to this may be attributed the fact that the output per hand is not quite so large as formerly.

METAL WORKS.

The number of metal and machinery works in operation during 1896, the average number of hands employed, and the machinery and other plant used, were as follow :—

Description of Works.	Number of Establishments.	Average number of Hands employed.						Machinery and other Plant.	
		Managers and Overseers.	Clerks, &c.	Engine-drivers, &c.	Workers in Factory, Mill, &c.	Carters, Messengers, &c.	Total.	Horse-power.	Value.
									£
Agricultural Implements	10	12	4	4	93	1	114	77	5,850
Boiler-making	3	2	..	1	41	..	44	151	11,300
Brass	8	12	3	3	49	..	67	26	3,720
Coppersmithing	4	7	..	..	41	..	48	7	1,500
Engineering	70	134	64	66	1,615	87	1,966	1,489	250,549
Galvanised Iron	20	25	10	2	148	9	194	25	8,510
Iron Works and Foundries	51	72	23	32	901	14	1,042	2,381	120,397
Lead	2	2	3	2	53	5	65	480	16,140
Railway Carriages*	3	9	3	4	94	6	116	58	13,300
Railway and Tramway Workshops	41	30	27	27	2,248	25	2,357	1,017	125,090
Smelting	22	61	41	67	1,796	111	2,076	1,586	164,075
Tinsmithing	23	28	3	4	136	1	172	95	6,761
Wire-working	4	5	10	4	199	3	221	24	14,953
Zinc (ornamental)	2	3	1	..	18	..	22	6	1,250
Other Metal Works	16	22	5	1	168	4	200	18	7,724
Total	279	424	197	217	7,600	266	8,704	7,440	751,329

* Including 1 establishment making railway springs.

The classification of works connected with machinery, engineering, and foundries presents many difficulties, as the trades are in many cases carried on side by side in the same establishment, and what one year is designated by a proprietor an "engineering establishment," may in the following year be returned as a "foundry," according to the importance of the work done during the year. The various descriptions of ironworks have been separately shown above, so far as it has been possible to classify them, but the figures referring to kindred industries should be read together.

The iron trade should in time form one of the great staple industries of the colony. Every natural advantage possessed by the great iron and machinery-producing countries of the world—such as England and Belgium—is also present here. Not only are iron and coal deposited in abundance, and in positions easily accessible and readily worked, but, as pointed out in the chapter on mines and minerals, the local iron ore is exceedingly rich. Scarcely any progress, however, has been made in iron smelting, and nearly the whole stock of pig and wrought iron required for the local manufactories is imported. With the acceptance of a local contract by the Government for the manufacture of steel rails, it is anticipated, however, that the industry will receive the much-needed impetus it has required. The other descriptions of metal works, both for smelting and manufacturing, are in a more forward state.

Works for the treatment of metals in 1886–87 numbered 320, in which were engaged 7,219 persons, while in 1896 the number of works was 279, and the hands employed had increased to 8,704. In 1886–87 there were 726 hands employed in 12 smelting works; the works now number 22, and the hands employed, 2,076. There has been a large increase in the hands employed in making or repairing railway motors, carriages, and other appliances, the employés in 1886–87 numbering 1,736, and in 1896, 2,473. Of the latter, 2,357 were employed in the workshops connected with the State railways.

BUILDING MATERIALS.

Industries directly or indirectly connected with the supply or preparation of building materials afford employment to a large number of persons, chiefly in saw-mills. The following table shows the hands employed during 1896:—

Description of Works.	Number of Establishments.	Average number of Hands employed.						Machinery and other Plant.	
		Managers and Overseers.	Clerks, &c.	Engine-drivers, &c.	Workers in Factory, Mill, &c.	Carters, Messengers, &c.	Total.	Horse-power.	Value.
									£
Asphalt	6	7	..	1	28	4	40	45	4,460
Bricks	150	180	21	36	847	211	1,295	1,242	111,721
Cement	2	3	1	5	29	6	44	150	800
Joinery	29	38	13	13	213	28	305	250	22,236
Lime, plaster, etc.	7	8	..	2	33	8	51	39	815
Marble and monumental masonry	28	34	5	4	164	5	212	48	3,710
Modelling and pattern-making	3	4	1	..	11	..	16	..	1,050
Paint	3	3	2	3	16	2	26	73	2,700
Pottery and earthenware	20	34	11	10	251	32	338	267	39,902
Saw-mills	326	447	121	268	1,832	519	3,187	5,385	265,020
Stone-crushing	10	13	3	11	172	32	231	262	16,230
Stone-dressing and polishing	2	3	..	2	18	..	23	52	3,900
Wood-turning and carving	18	21	1	3	49	4	78	100	5,935
Total	604	795	179	358	3,663	851	5,846	7,913	478,479

The number of persons employed in the various timber districts, in saw-mills, etc., increased at a good rate from 1886 to 1892, but since the latter year has fallen off owing to the stagnation in the building trade. The establishments in 1886–87 numbered 323, employing a total number of 3,284 persons, while in 1896 there were 326 mills, and the number of hands employed was 3,187. The capacity of plant in the latter year was 5,385 horse-power, and its value about £265,020; the quantity of timber sawn was estimated at 169,600,000 superficial feet 1 inch thick. The number of saw-mills and hands employed and the output during the past ten years were:—

Year.	Saw-mills.	Hands employed.	Quantity of Timber sawn.
	No.	No.	1,000 sup. feet.
1886–87	323	3,284	110,000
1887–88	322	3,254	125,000
1888–89	317	3,616	185,000
1889–90	325	3,578	185,021
1890–91	346	3,788	201,505
1892	288	4,573	229,696
1893	283	3,266	196,114
1894	299	3,257	173,088
1895	315	3,402	180,000
1896	326	3,187	169,600

The industry of brickmaking has declined in importance, and now employs only two-fifths of the hands of ten years ago. This is due to the almost entire suspension of large public works, and to the lessened activity of private builders. The following is a statement of the hands employed and the output for the last ten years:—

Year.	Hands employed.	Bricks made.	Year.	Hands employed.	Bricks made.
	No.	thousands.		No.	thousands.
1886–87	2,959	243,831	1892	1,504	115,293
1887-88	2,230	214,199	1893	1,357	105,442
1888–89	2,124	219,795	1894	1,242	92,113
1889–90	1,874	187,769	1895	1,211	99,587
1890–91	2,018	184,862	1896	1,295	102,459

LIGHT AND HEAT.

The hands employed in establishments connected with lighting and heating showed a steady increase until 1893, but in 1894 and 1895 the smaller number finding employment in kerosene and gas works caused a reduction in the course of the two years of 550. In 1896 the introduction of labour-saving machinery was responsible for a further reduction of 200 hands, the remainder of the decrease being accounted for by the exclusion from the returns of the persons employed in the distribution of gas. With this explanation, the following table showing the number of hands employed during the last ten years is given :—

Year.	Hands.	Year.	Hands.
1886-87	745	1892	1,895
1887-88	933	1893	1,976
1888-89	1,299	1894	1,683
1889-90	1,414	1895	1,424
1890-91	1,545	1896	859

The condition of employment in the various industries grouped in this class during 1896 was as follows :—

Description of Works.	Number of Establishments.	Average number of Hands employed.						Machinery and Plant.	
		Managers and Overseers.	Clerks, &c.	Engine-drivers, &c.	Workers in Factory, Mill, &c.	Carters, Messengers, &c.	Total.	Horse-power.	Value.
									£
Coke	4	7	4	5	53	1	70	93	31,200
Electric light	27	27	4	56	46	1	134	3,941	121,300
Gas	42	53	36	107	407	18	621	625	1,195,129
Kerosene	1	2	..	2	30	..	34	20	15,000
Total	74	89	44	170	536	20	859	4,679	1,362,629

The majority of the hands, as will be seen, found employment in gas-works, of which there were 42 in operation during the year 1896, employing 621 hands. The quantity of gas manufactured was 1,817 million cubic feet, to produce which about 171,000 tons of coal were used, giving an average of about 10,600 feet of gas for each ton of coal. The quantity of gas made during the past nine years was :—

Year.	Thousand cubic feet of gas.	Year.	Thousand cubic feet of gas.
1887-88	1,361,408	1893	1,805,812
1888-89	1,379,150	1894	1,772,557
1889-90	1,434,942	1895	1,822,243
1890-91	1,512,232	1896	1,816,613
1892	1,670,944		

The rate charged to consumers varies in different localities between 3s. per 1,000 feet in Bathurst and 17s. 6d. in Deniliquin, while the prices for street lighting vary from £4 15s. per lamp per annum in Sydney to £10 in Hay. The price charged by the principal company to private consumers in Sydney and suburbs has been reduced recently to 4s. 3d. per 1,000 feet. The total consumption of gas in Sydney and suburbs during 1896 was 1,530,602,000 cubic feet, and in Melbourne and suburbs 1,236,600,000 cubic feet. From these figures it follows that the consumption per inhabitant in Sydney was 3,740 cubic feet, and in Melbourne, 2,752 cubic feet.

PRINTING TRADES.

The trades connected with printing and bookbinding are perhaps more keenly affected by general prosperity or depression than any other industry. The fluctuation in trade matters will be seen from the figures relating to employment in printing and allied works during the last nine years :—

Year.	Hands employed	Year.	Hands employed.
1887–88	3,771	1893	4,138
1888–89	4,378	1894	4,284
1889–90	4,688	1895	4,731
1890–91	4,200	1896	4,938
1892	4,494		

The following shows the subdivision of the hands for the year 1896 :—

Description of Works.	Number of Establishments.	Average number of Hands employed.						Machinery and Plant.	
		Managers and Overseers.	Clerks, &c.	Engine-drivers, &c.	Workers in Factory, Mill, &c.	Carters, Messengers, &c.	Total.	Horse-power.	Value.
									£
Electrotyping and stereotyping	3	5	..	..	27	..	32	51	12,699
Paper bags, boxes, etc.	9	12	8	1	148	4	173	21	2,570
Paper	2	2	4	4	67	3	80	275	13,200
Printing and bookbinding	268	507	298	39	3,592	177	4,613	813	424,758
Printing materials	3	5	5	2	25	3	40	21	8,670
Total	285	531	315	46	3,859	187	4,938	1,181	461,897

VEHICLES AND SADDLERY.

The number of large establishments connected with the manufacture of vehicles and saddlery is not great, the average number of hands employed in all works being only ten. The following figures refer to 1896:—

Description of Works.	Number of Establishments.	Average number of Hands employed.						Machinery and Plant.	
		Managers and Oversesrs.	Clerks, &c.	Engine-drivers, &c.	Workers in Factory, Mill, &c.	Carters, Messengers, &c.	Total.	Horse-power.	Value.
									£
Coaches and Waggons	139	176	15	5	1,029	5	1,230	87	27,917
Saddlery, Saddle-trees, Whips, &c..	32	41	5	..	291	9	346	11	4,471
Spokes	3	3	..	1	7	1	12	30	875
Total	174	220	20	6	1,327	15	1,588	128	33,263

As already explained in the chapter treating of forestry, the timbers of the colony are very suitable for coach and waggon building, and it is likely that the immediate future will see them more generally used for this purpose. There is room in New South Wales for the establishment of factories for the manufacture of wheels, which are at present largely imported from the United States; and if they were conducted on American lines they would probably secure the whole of the Australasian trade.

SHIP AND BOAT BUILDING.

During the year 1896, works connected with the building or refitting of ships employed 1,132 hands, by far the largest portion of whom were engaged in or about the port of Sydney. Nearly all the docks, too, are in Sydney, where is situated the Sutherland Dock, one of the largest single graving docks yet constructed. A more detailed description of the facilities existing in the colony for the accommodation of shipping will be found in the chapter dealing with "Shipping":—

Description of Works.	Number of Establishments.	Average number of Hands employed.						Machinery and Plant.	
		Managers and Overseers.	Clerks, &c.	Engine-drivers, &c.	Workers in Factory, Mill, &c.	Carters, Messengers, &c.	Total.	Horse-power.	Value.
Docks and Slips	6	16	19	16	857	42	950	1,125	141,475
Sails, Tarpaulins, and Tents	8	10	1	..	59	..	70	4	1,195
Ship and Boat building and repairing	10	16	2	6	83	5	112	57	10,708
Total	24	42	22	22	999	47	1,132	1,186	153,378

FURNITURE.

The furniture and allied trades now employ 300 fewer hands that they did seven years ago, the numbers being :—

Year.	Hands employed.	Year.	Hands employed.
1886–87	1,380	1892	1,048
1887–88	1,323	1893	637
1888–89	1,477	1894	794
1889–90	1,424	1895	772
1890–91	1,234	1896	1,167

The decline in the number of hands was continuous from 1888 to 1893, but the figures for 1894 showed a satisfactory increase, the labour conditions being greatly improved in 1896. Included with the 843 hands engaged in making furniture are 300 Chinese. Formerly the number of these aliens occupied in the cabinet-making industry was much larger, but the Chinese Restriction Act has effectually prevented the recruiting of hands for the shops employing them, and by putting a premium on their labour has enabled them, where they remained in the employment of the furniture factories, to obtain higher wages. Of late years there has been a marked tendency for the Chinese workmen to abandon their old employment, and combine in threes and fours for the purpose of establishing co-operative shops.

Description of Works.	Number of Establishments.	Average number of Hands employed.						Machinery and Plant.	
		Managers and Overseers.	Clerks, &c.	Engine-drivers, &c.	Workers in Factory, Mill, &c.	Carters, Messengers, &c.	Total.	Horse-power.	Value.
									£
Bedding, Flock, and Upholstery ..	18	26	6	2	155	7	196	100	6,970
Furniture	60	92	9	5	723	14	843	152	9,919
Picture Frames	4	5	3	..	85	10	103	5	420
Window Blinds	3	4	1	..	10	1	25	1	550
Total	85	127	19	7	982	32	1,167	258	17,859

MISCELLANEOUS INDUSTRIES.

Besides the industries already dealt with, there are numerous others not readily falling under any of the categories into which the manufactories have been grouped. These have been placed together in the following table, though there is little relation between any two there included. None of the industries, tobacco-manufacturing and soap and candle-making perhaps excepted, finds employment for any large number of hands; but many of them promise to develop into important interests, as there is an ample field for them in the colony.

Description of Works.	Number of Establishments.	Average number of Hands employed.						Machinery and Plant.	
		Managers and Overseers.	Clerks, &c.	Engine-drivers, &c.	Workers in Factory, Mill, &c.	Carters, Messengers, &c.	Total.	Horse-power.	Value.
Baskets and wickerware, mats and matting	6	8	1	..	63	..	72	3	220
Billiard tables	2	4	..	..	9	3	16	3	575
Boxes and packing cases	8	8	1	2	81	3	95	46	3,530
Brooms and brushes	8	8	2	..	73	1	84	8	1,565
Chaff-cutting and corn-crushing	47	56	11	22	133	28	250	378	13,250
Chemicals, drugs, and patent medicines	15	21	11	10	162	13	217	125	26,540
Cooperage	16	21	5	5	226	10	267	145	11,040
Dye works	7	10	..	1	31	..	42	6	490
Electro-plating	5	9	3	1	29	1	43	23	3,190
Fancy leather	4	7	..	1	25	..	33	11	565
Glass (including bottles)	3	6	2	4	99	3	114	11	4,200
Glass (ornamental)	9	10	2	1	62	1	76	24	1,945
Jewellery (Manufacturing)	6	6	3	..	50	..	59	2	970
Lamps	2	2	..	..	9	2	13	..	100
Perambulators	2	2	..	..	13	1	16	1	500
Rope and fishing-lines	6	9	1	4	95	2	111	83	12,080
Soap and candles	43	61	16	7	230	56	370	770	72,270
Soap, Extract of	3	3	..	3	12	4	22	53	1,291
Surgical instruments, trusses, &c.	5	8	..	..	24	1	33	3	1,670
Tobacco, cigars, and cigarettes	8	22	25	10	572	12	641	212	55,700
Umbrellas, &c.	2	2	1	..	9	1	13	..	60
Violin strings	2	3	..	..	14	1	18	..	50
Wooden skewers	2	2	..	..	4	..	6	12	350
Other Industries	16	17	23	2	190	12	244	83	6,710
Total	227	305	107	73	2,215	155	2,855	2,002	218,861

This table includes, under "Other Industries," one of each of the following :—Bee hives, cutlery, explosives, horse and cattle medicines, incandescent gas-light mantles, leather belting, photo-engraving, portmanteaus and bags, revolving shutters (wood), rubber goods, sewing machines, sausage skins, tobacco pipes, trunks (iron), varnishes, and wood shives. These have been combined in order that particulars of the business of individual firms may not be disclosed.

Tallow being one of the staple products of the country, the manufacture of soap and candles, as might be expected, is firmly established. The quantity of toilet and fancy soap made, is, however, as yet but small, and in quality it is scarcely equal to that imported at lower prices. Common soap of local make is cheaper than the imported article, and being also much better, it usually commands the local market. The quantity made in 1886-87 was 155,430 cwt., which had, however, decreased to 150,373 cwt. in 1896. The quantity of candles manufactured was 2,199,282 lb. in 1886–87, and 3,734,050 lb. in 1896, and the supply, including imports, was 4,915,042 lb. and 6,334,916 lb. respectively. The following table shows the progress of the industry during the past ten years. The quantities stated in the table are those returned by the manufacturers, and are given for what they are worth, but it is believed that the information for years previous to 1892 is but little to be relied on :—

Year.	Factories.	Hands employed.	Quantities manufactured.	
			Soap.	Candles.
	No.	No.	cwt.	lb.
1886–87	46	321	155,430	2,199,282
1887-88	52	367	190,060	2,442,960
1888–89	59	397	198,880	2,796,700
1889–90	30	250	164,800	2,388,440
1890–91	27	194	143,520	1,545,920
1892	21	257	110,360	3,304,130
1893	51	411	180,576	3,510,155
1894	49	467	204,623	4,785,109
1895	50	476	299,356	4,632,730
1896	43	370	150,373	3,734,050

The use of tobacco and cigarettes of local manufacture has, to a very large extent, superseded that of the imported articles. The amount of cigars made in the colony is, on the other hand, very small compared with the total quantity consumed. In 1886-7 there were 10,269 lb. of leaf used in the local manufacture of cigarettes, while in 1896 the quantity had increased to 169,520 lb. The weight of each description of tobacco used in the colony during 1896 amounted to :—

Description.	Imported Manufactured.	Made in the Colony.	Total.
	lb.	lb.	lb.
Tobacco	943,833	1,857,616	2,801,449
Cigars	179,492	16,553	196,045
Cigarettes	67,470	169,520	236,990

A large amount of imported leaf is used in the manufacture of tobacco in the colony, the proportion during 1896 being 693,913 lb. of imported leaf, chiefly American, to 1,349,776 lb. of New South Wales leaf. The quantity of each kind of tobacco made in the colony, as well as the weight of leaf used in the manufacture, will be found in the following table. The quantity of leaf given does not include stalks and stems, which are taken out in the process of manufacture. As ingredients other than tobacco leaf are known to be used in the making of tobacco, it is probable that the figures showing the quantity of locally-grown leaf used are too high. The proportion of leaf not used would be about 25 per cent. of the total weight.

Year.	* Tobacco Leaf used.		Quantity manufactured.		
	New South Wales Leaf.	Imported Leaf.	Tobacco.	Cigars.	Cigarettes.
	lb.	lb.	lb.	lb.	lb.
1887	1,611,527	552,217	2,147,418	6,057	10,269
1888	1,463,815	610,485	2,062,380	3,624	8,296
1889	1,440,244	545,743	1,971,394	5,393	9,200
1890	1,345,620	569,420	1,892,592	4,120	18,328
1891	1,403,240	639,148	1,982,991	3,412	55,985
1892	1,429,136	617,608	1,964,624	5,128	76,992
1893	1,284,582	597,482	1,776,560	480	105,024
1894	1,312,575	540,009	1,732,496	5,117	114,971
1895	1,334,924	636,287	1,833,744	11,147	126,320
1896	1,349,776	693,913	1,857,616	16,553	169,520

* Stalks and fibre of leaf removed.

GOVERNMENT EMPLOYÉS.

The Government of the colony is a very considerable factor in the labour market, as, according to the Blue Book for 1894, it had then in its pay no less than 31,741 persons, including those temporarily engaged, but excluding all persons who were merely entitled to receive fees from the public for services rendered. The police were included in these figures, but only such of the defence forces as were in receipt of regular salaries. Of the number given, less than 18,000 could be called civil servants in the sense in which the term is ordinarily employed. A statement of the Service as it now stands will not be available until the issue of the "Public Service List."

The following table gives the distribution amongst the Departments in 1894 :—

Department.	Number.
Chief Secretary	3,246
Railways and Tramways	10,715
Public Instruction	4,854
Public Works	4,902
Postmaster-General (Post and Telegraphs)	3,471
Colonial Treasurer	1,608
Justice and Attorney-General	1,365
Lands	779
Mines and Agriculture	650
Other Departments (Executive, Legislature, and Mint)	151
Total	31,741

The figures given above included a large number of persons who were only partially employed during the year, and were in receipt of very small salaries.

STEAM POWER.

The power used in the colony for manufacturing, transporting, and other purposes is equivalent to 162,462 horse-power, or 126 horse-power for every thousand persons, a rate comparing not unfavourably with other countries, as will be seen from the subjoined statement, computed from Mulhall's *Dictionary of Statistics* :—

Country.	Horse-power employed.	Per 1,000 of the population.
	thousands.	
United Kingdom	9,200	250
France	4,520	110
Germany	6,200	130
Russia	2,240	30
Austria	2,150	50
Italy	830	30
Spain	740	40
Belgium	810	140
Holland	340	80
United States	14,400	240
New South Wales	162	126

Of the total power employed in the colony, by far the greater portion is derived from steam. The services for which the power is used are shown in the following table, from which it will be seen that land and water transport absorb 89,614 horse-power, or over 55 per cent. of the total horse-power employed. The information with regard to transport and manufactories is fairly exact, but is only approximate for the other industries :—

Industries employing power.	Horse-power.
Transport, Land	68,500
Transport, Water	21,114
Manufactories, etc.	33,253
Agricultural, Pastoral, and Dairy Farming	18,220
Mining	9,875
Miscellaneous	11,500
Total	162,462

New South Wales has few running streams so placed as to be available for the purpose of driving machinery for manufacturing purposes. The larger portion of the power used is, therefore, derived from steam ; in some instances, chiefly in the metropolis, gas is employed ; the other power used is in a few cases hydraulic or electric, while the balance comprises machinery worked by horses and cattle. In the table given below the number of establishments using machinery is shown, with the aggregate horse-power. By the term "full capacity" is understood the power capable of being generated by the boilers or machinery, and by the term "power actually used" the power required to work the processes :—

Classification Industries.	Number of Establishments using Machinery.	Full Capacity of Machinery.			Power actually used.		
		Steam.	Gas.	Other Power	Steam.	Gas.	Other Power.
		h.p.	h.p.	h.p.	h.p.	h.p.	h.p.
Treating raw material, the product of pastoral pursuits	197	3,043	8	22	2,350	6	18
Connected with food and drink, or the preparation thereof	683	15,989	269	78	12,765	185	65
Clothing and textile fabrics	51	426	203	14	285	174	14
Building materials	558	7,665	111	137	6,292	105	93
Metal works, machinery, etc.	211	7,319	57	64	5,467	41	55
Ship-building, repairing, etc	12	1,062	4	120	627	4	65
Furniture, bedding, etc.	27	144	114	...	119	76	...
Books, paper, printing, etc.	149	590	588	3	522	363	3
Vehicles, saddlery, and harness	14	124	4	...	105	3	...
Light, fuel, and heat	61	2,756	3	1,920	1,708	2	269
Other works	155	1,890	112	...	1,394	78	...
Total	2,118	41,008	1,473	2,358	31,634	1,037	582

Very few manufactories use different kinds of motive power at the same time, their number not exceeding twenty.

Returns regarding the employment of machinery in manufactories have been obtained for some few years, and the aggregate figures for each year are given below. The figures are given for what they are worth, as for years previous to 1892 it cannot be claimed that they are more than approximate :—

Year.	Horse-power of Machinery employed in Manufactories.
1886-87	25,192
1887-88	26,152
1888-89	24,990
1889-90	25,790
1890-91	24,662
1892	28,061
1893	27,162
1894	29,197
1895	31,802
1896	33,253

The importance of the manufacturing industry to the coal producer may be gathered from the fact that out of a total of 3,780,968 tons raised and 1,589,263 tons required for local consumption in 1892, 755,000 tons were used for manufacturing purposes, in addition to 158,000 tons consumed by gas-works. The total value of fuel consumed was £425,161, of which £396,375 was the value of coal; the value of firewood, gas, or other fuel was, therefore, not considerable.

VALUE OF PRODUCTION.

The value of the product of the manufacturing industry is not ascertained every year, as the labour and expense involved in obtaining the information are very considerable. The last year for which there are full particulars is 1892. It was then ascertained that the total value of articles produced, or, where manufacturing in its restricted sense is not carried on, the increased value to materials from treatment, was £16,098,630; and the value of materials used, including fuel, £8,299,840; the difference, £7,798,790, representing the production. This last item may again be divided into £4,458,836, the amount of wages paid, and £3,339,954, the earnings of capital. What is the income, properly so called, of those who carry on the industries, apart from rent and interest on borrowed capital and trade losses, was not ascertained. An attempt to arrive at this sum was made, but the results deduced from the information supplied cannot be considered accurate, and are therefore not given. In the following statement the various elements of cost are shown for each class of industry, as well as the amount of fixed capital embarked. By fixed capital is understood the value of lands and buildings, machinery, and plant :—

Class of Industry.	Establishments.	Fixed Capital.	Total Wages paid.	Value of Materials used.	Value of Fuel used.	Value of Articles produced, or increased value to materials from treatment.
	No.	£	£	£	£	£
Raw Material, the product of Pastoral Pursuits.	140	505,908	151,134	350,500	15,410	729,908
Connected with Food and Drink or the preparation thereof.	511	4,100,034	580,204	3,123,697	83,546	4,809,007
Clothing and Textile Fabrics	259	904,888	465,291	865,443	1,772	1,550,415
Building Materials	500	2,798,080	742,736	918,193	94,978	2,031,530
Metal Works, Machinery, etc.	267	3,326,240	1,227,439	1,273,183	193,167	3,274,116
Ship-building, Repairing, etc.	32	759,044	119,079	88,462	1,965	262,475
Furniture, Bedding, etc.............	70	242,911	88,112	164,211	747	298,684
Books, Paper, Printing, Engraving, etc.	160	1,549,332	482,910	273,649	6,358	1,089,319
Vehicles, Harness, and Saddlery....	186	449,766	227,335	210,924	3,188	545,598
Light, Fuel, and Heat	57	1,825,320	208,730	139,274	14,073	597,149
Miscellaneous	137	1,077,456	165,866	467,146	9,957	820,428
Total..................	2,319	17,538,979	4,458,836	7,874,682	425,161	16,098,629

The value of wool washed has been omitted from the total under the heading of value of articles produced and increased value to materials treated ; so also has the value of repairs effected in Government workshops and docks.

It is not possible to give like information to what is shown in the foregoing table in regard to the year 1896 ; but the total value of production, apart from the materials used, may be set down at £7,243,700, and of this amount wages represent £3,961,300.

The value of the production of the manufacturing industry has been estimated for 1880 and some succeeding years, and is shown in the following table. The figures are practically on the same basis as those for 1892, the details of which are given above.

Year.	Value of Production.
	£
1880	4,437,700
1885	6,296,000
1890	7,615,000
1892	7,798,786
1894	6,726,750
1895	6,965,100
1896	7,243,700

The employment and production alluded to in the preceding pages refer to establishments classed for statistical purposes as manufactories. Besides the 49,055 hands accounted for in the tables, there are others actually engaged in manufacturing processes who are not included. These comprise persons working in their own homes or in establishments too small to be properly designated as manufactories. In the foregoing pages a manufactory has been considered to be an establishment using steam, or, when steam is not used, where four or more hands are usually employed. It is estimated that there are 5,285 males and 10,960 females who are thus excluded from classification. The males comprise tailors and shoemakers working in their own homes or in companies of less than four; and wheelwrights, blacksmiths, saddlers, and other workers of the same type, whose establishments are principally repairing shops, such as are found in every village of the colony. The females are mainly seamstresses, milliners, and dressmakers; and from their numbers it will be seen that the women working outside the factories are a far more important body than the hands employed within those establishments.

The total number of persons engaged in the various manufacturing processes may, therefore, be set down at 65,300, and the value of their production at £7,955,000, which includes £711,300, the value of the work of the hands not included in the returns of factories. These are the figures which will be quoted in the remaining tables of this chapter.

IMPORTATION OF LABOUR.

Since the cessation of assisted immigration by the State there has been very little labour imported by the capitalists and manufacturers of the colony; in fact, almost all the artisans and labourers who have arrived here within the last few years have been those who have left the other Australasian colonies in the hope of improving their position in New South Wales. The question of the importation of labour has not been largely dealt with by legislation in this colony. The chief enactment on the subject is the Agreements Validating Act, 39 Vic. No. 29, which provides that agreements made in any place beyond the colony for a period of service not exceeding two years shall be as binding and effectual as though they had been entered into within the colony, provided that the contract or agreement shall have been made and subscribed to in the presence of some officer duly authorised in that behalf by the Governor and Executive Council of New South Wales.

WAGES.

In New South Wales, as in most other Australian colonies, the rapid settlement of the country created a demand for labour of all kinds which could not be satisfied except by a constant accession of labourers from other countries. This demand, which was continuous for many years, resulted in the establishment of a rate of wages much higher than is ordinarily found in older lands. During 1892, however, with the depression in trade there came a partial reduction in wages, and in 1893 and the two following years this became general. The following are the average weekly wages in various trades during 1896. The average rates of representative trades from the year 1821 to the present time will be found in the preceding chapter of this work dealing with the industrial history of the colony. In the numerous instances in which work is done and paid for as piecework, weekly rates of wages have been calculated on the assumption that a week is equal to forty-eight hours' work, and the rates quoted show, therefore, the amount of wages which would be earned by workmen doing a full week's work.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
I.—PERSONS ENGAGED IN TREATING RAW MATERIAL, THE PRODUCT OF PASTORAL PURSUITS.					
Boiling-down.					
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
Foremen	2 10 0	2 0 0	Tallowmen	2 0 0	1 18 0
Offal and bone men	2 5 0	1 5 0	Oilmakers	2 0 0	1 16 0
Bone-dust makers	2 0 0	1 16 0			
Tanneries.					
Foremen	4 10 0	2 10 0	Tanners	2 5 0	1 10 0
Fleshers	2 5 0	1 16 0	Rollermen	2 10 0	1 10 0
Curriers	2 10 0	2 0 0	Yardmen	2 2 0	1 10 0
Picklers	2 8 0	1 10 0	Limemen	2 0 0	1 10 0
Beamsmen	3 0 0	1 10 0			
*Wool-washing.**					
Foremen	5 0 0	2 5 0	Wooldriers	2 2 0	1 10 0
Woolsorters	2 8 0	2 0 0	Woolsoakers	2 0 0	1 10 0
Woolpullers	2 8 0	2 0 0	Skinmen	1 16 0	1 16 0
Woolwashers	2 8 0	1 16 0	Bearers and Drivers	1 16 0	1 13 0
Woolpackers	2 10 0	2 0 0			
II.—PERSONS ENGAGED IN TRADES CONNECTED WITH FOOD AND DRINK, OR THE PREPARATION THEREOF.					
Aërated Waters.					
Foremen	5 0 0	2 10 0	Washers	1 15 0	0 10 0
Makers	4 0 0	2 0 0	Wirers	1 15 0	0 15 0
Packers	2 0 0	1 10 0	Corkers	1 15 0	0 15 0
Bottlers	2 0 0	1 0 0	Labellers	0 15 0	0 8 0
Bread, Biscuits, and Confectionery.					
Foremen	4 0 0	2 0 0	Bakers	3 0 0	1 5 0
Confectioners, Factory hands—			Forewomen	1 10 0	0 16 0
			Biscuit-bakers	3 0 0	1 10 0
Males	3 0 0	1 10 0	Boys	1 0 0	0 8 0
Females	0 15 0	0 8 0	Girls	0 10 0	0 8 0
Breweries.					
Foremen	4 0 0	2 12 6	Bottlers	2 12 6	0 10 0
Topmen	2 10 0	1 15 0	Coopers	3 0 0	2 0 0
Cellarmen	2 10 0	2 0 0	Draymen	2 10 0	2 0 0
Cask-washers	2 10 0	2 0 0	Boys	0 18 0	0 7 6
Brewery hands	2 2 0	1 10 0			

* In nearly every instance this class of work is done by piecework, and the weekly earnings given represent the amounts earned on those lines.

NOTE.—Head brewers at large breweries command salaries ranging from £250 to £800 per annum.

II.—PERSONS ENGAGED IN TRADES CONNECTED WITH FOOD AND DRINK, OR THE PREPARATION THEREOF—*continued.*

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum
Butter Factories and Creameries.					
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
Experts at milk-testing	4 0 0	2 5 0	Assistants	2 0 0	1 5 0
Butter-makers	3 0 0	2 0 0	Boys	1 0 0	0 10 0
Condiments.					
Foremen	4 0 0	2 10 0	Labellers and packers	1 0 0	0 5 0
Mill hands and journeymen	3 0 0	1 15 0	Grinders (boys)	1 0 0	0 7 0
Storemen	3 0 0	1 10 0	Girls	0 10 0	0 5 0
Forewomen	1 5 0	1 0 0			
Flour and Maize Meal.					
Millers	3 10 0	3 0 0	Smutters and oilmen	2 0 0	1 16 0
Samplers	2 5 0	2 0 0	Packers	1 16 0	1 10 0
Sleevemen	2 2 6	2 0 0	Purifier men	1 16 0	1 10 0
Stackers	2 0 0	1 16 0			

NOTE.—In the smaller mills the proprietor usually acts as foreman; in large mills the salary of the foreman miller is a matter of arrangement with the owners, and no standard rate can be given.

Ice and Refrigerating.					
Foremen	3 10 0	2 0 0	Journeymen	2 5 0	2 0 0
Jam and Fruit Canning.					
Foremen	4 0 0	2 10 0	Packers	1 16 0	0 10 0
Jam-boilers	2 5 0	1 10 0	Case-makers	2 0 0	1 5 0
Firemen	1 15 0	1 10 0	Boys	0 17 6	0 5 0
Solderers and tinmakers	2 10 0	2 0 0	Women and girls	1 5 0	0 8 0
Labellers	0 15 0	0 8 0			
Meat Preserving.					
Extract-makers	3 12 0	2 5 6	Butchers	3 10 0	2 10 0
Tallow-makers	2 18 4	2 2 0	Tinsmiths and solderers	3 10 0	2 2 0
Salters	3 0 0	2 2 0	Boys	1 0 0	0 10 0
Smallgoods man	2 14 0	2 2 0			

NOTE.—Most of the men employed in meat-preserving works are paid by results, and the rates of wages quoted represent the amounts usually earned per week. The week, in some cases, is reckoned as seven days.

Sugar Mills.					
Managers Cane inspectors Chemists for sugar analysis	Salaried officers.		Foremen labourers Labourers Steamer hands	2 10 0 1 15 0 3 0 0	1 15 0 1 10 0 1 15 0
Engineers and fitters	4 10 0	3 0 0	Cane-throwers	2 10 0	2 8 0
Foremen mechanics	4 0 0	3 12 0	Cane-cutters	3 10 0	2 0 0
Mechanics	4 0 0	2 8 0	Bag-sewers	1 15 0	1 10 0
Pan boilers	3 5 0	3 5 0			

NOTE.—The rates of wages quoted are those paid by the Colonial Sugar Refining Company, Limited. All employés on daily wages are provided with board and lodging, the estimated value of which is included in the wages here quoted. The regular hours of working are ten per day.

Vinegar Works.					
Manufacturers	3 0 0	3 0 0	Bottlers and labellers	1 0 0	0 10 0
Yeast Works.					
Makers	2 10 0	2 0 0			

III.—PERSONS ENGAGED IN THE MANUFACTURE OF CLOTHING AND TEXTILE FABRICS.

Boots and Shoes.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
Foremen	3 10 0	2 10 0	Fitters	1 7 6	0 10 0
Machine operators	2 10 0	1 10 0	Tiers-off	0 10 0	0 4 0
Clickers	2 5 0	1 10 0	Finishers	2 10 0	1 5 0
Assistant clickers	1 5 0	0 12 0	Packers	2 5 0	1 10 0
			Repairers	2 0 0	1 5 0
Rough-stuff cutters and pressmen	2 10 0	1 5 0	Female machinists	1 5 0	0 12 6
Makers	2 10 0	1 0 0	,, (apprentices)	0 15 0	0 4 0
Blockers	2 0 0	1 0 0	Boys	0 15 0	0 4 0

Clothing.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
Cutters	3 0 0	2 10 0	Machinists	1 10 0	0 10 0
Foremen	6 0 0	3 0 0	Trimmers	3 0 0	2 0 0
Coat-hands, Males	3 10 0	1 10 0	Button-hole workers	2 0 0	1 0 0
,, Females	1 15 0	0 15 0	Folding hands	3 0 0	1 5 0
Trousers hands, Males	3 0 0	2 10 0	Pressers	3 0 0	2 0 0
,, Females	1 5 0	0 10 0	Examiners	3 0 0	2 10 0
Vest-hands, Males	2 8 0	2 0 0	Boys	1 0 0	0 5 0
,, Females	1 2 6	0 10 0			

NOTE.—Most persons engaged in the tailoring trade are paid by piecework, and a considerable proportion of the work, both for clothing factories and shops, is done by the employés at their own homes. In such cases it is often difficult to obtain a reliable statement of actual weekly earnings, and the rates quoted are, therefore, those paid per week to employés constantly at work.

Furriers.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
Furriers	2 12 0	2 0 0	Females	1 0 0	0 10 6
Forewomen	1 5 0	1 0 0	Boys	0 7 6	0 7 6

Hats and Caps.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
Journeymen	3 0 0	2 0 0	Girls	1 10 0	0 10 0
Trimmers	1 5 0	0 10 0			

NOTE.—The wages quoted must be taken as approximate, the number of people employed at this industry being small and the work chiefly piecework.

Oilskin and Waterproof Clothing.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
Foremen	3 0 0	2 0 0	Oilers	2 0 0	1 10 0
Cutters	2 10 0	1 15 0	Machinists	1 2 6	0 15 0

NOTE.—The proprietors of the few establishments devoted to this industry generally act as foremen, and in some cases as cutters.

Shirtmaking.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
Shirt-cutters	4 0 0	3 0 0	Machinists	1 0 0	0 15 0
Forewomen	1 10 0	1 5 0	Button-hole workers	0 18 0	0 15 0
Fitters	1 0 0	0 10 0	Finishers	0 12 0	0 10 0
Blousers	1 0 0	0 10 0			

NOTE.—Shirt-making is generally carried on by the employés at their own homes, and as payment is made by results the weekly earnings are in some cases below the figures quoted.

Dressmaking, Underclothing, and Millinery.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
Forewomen (dressmakers)	6 10 0	1 10 0	Machinists	1 10 0	0 14 0
Tailors	2 10 0	2 0 0	Forewomen (milliners)	3 0 0	2 0 0
Tailoresses	1 15 0	0 10 0	Milliners	1 10 0	0 15 0
Bodice hands	1 10 0	0 14 0	Improvers	0 12 6	0 7 6
General dressmakers	1 10 0	0 14 0	Saleswomen	3 10 0	0 15 0

NOTE.—The rates quoted are those paid by large establishments. The wages paid or amounts earned per week in smaller establishments vary considerably, as payment is by piecework.

III.—Persons engaged in the Manufacture of Clothing and Textile Fabrics—*continued.*

Woollen Mills.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
Foremen	5 0 0	5 0 0	Warpers	1 15 0	1 5 0
Carders	3 0 0	2 0 0	Wool-scourers	1 15 0	1 15 0
Loom-tuners	3 0 0	1 10 0	Pressmen	2 0 0	1 10 0
Wool-sorters	2 5 0	2 5 0	Weavers (females).	1 10 0	0 17 0
Finishers	2 5 0	1 10 0	Feeders	0 10 0	0 10 0
Dyers	3 0 0	1 0 0	Burlers and pickers	1 0 0	0 17 0
Spinners	2 10 0	2 0 0	Boys and girls	0 15 0	0 6 0
Millmen	2 0 0	2 0 0			

IV.—Persons Engaged in Connection with Building Materials, etc.

Asphalting and Tar-paving.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
Asphalters	2 2 0	1 16 0	Boys	1 0 0	0 7 0
Woodblockers	3 0 0	1 10 0			

Brickworks.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
Foremen	4 0 0	2 8 0	Pressers	2 10 0	1 15 0
Clay-diggers and pitmen	2 8 0	1 16 0	Burners	3 10 0	2 8 0
Panmen and grinders	2 10 0	1 15 0	Loaders-out	2 10 0	2 0 0
Setters	2 8 0	2 0 0	Stackers	2 8 0	2 0 0
Brickmakers and moulders	2 15 0	2 0 0	Carters	2 5 0	1 10 0

Cement.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
Millers	3 10 0	3 0 0	Kiln-fillers	2 5 0	2 0 0
Burners	2 12 0	2 0 0	Labourers	2 0 0	1 10 0

Note.—Most of the work is done by contract, the men being paid at per ton of cement ground. The figures quoted represent the average weekly earnings.

Joinery, Wood-turning, and Carving.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
Foremen	3 12 0	3 0 0	Carvers	3 0 0	1 10 0
Joiners	2 14 0	2 8 0	Apprentices	1 5 0	0 7 0
Turners	2 14 0	1 10 0			

Lime Works.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
Foremen	3 0 0	3 0 0	Lime-drawers	2 8 0	2 0 0
Quarrymen	2 5 0	2 2 0	Burners	2 8 0	2 0 0
Crane-drivers	2 0 0	1 16 0			

Modelling, Patterns, and Cement and Plaster Decorations.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
Modellers	3 0 0	3 0 0	Casters	1 0 0	0 10 0
Pressers	2 8 0	1 10 0			

Note.—The works, which are small, are generally carried on by the proprietor, assisted by a few youths as pressers and casters.

Monumental and Marble Masons.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
Foremen	3 10 0	2 10 0	Bluestone masons	2 10 0	2 0 0
Sculptors	3 0 0	2 10 0	Polishers	2 8 0	1 10 0
Letter cutters and carvers	3 0 0	2 8 0	Fixers	2 8 0	1 5 0
Marble masons	2 10 0	2 0 0			

Paint and Varnish.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
Chemists	6 0 0	6 0 0	Manufacturers	5 16 0	2 10 0
Foremen	2 10 0	2 10 0	Labourers	1 16 0	1 10 0

Potteries.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
Foremen	3 10 0	2 8 0	Burners	2 15 0	2 0 0
Throwers	3 0 0	2 0 0	Clay-getters	2 8 0	1 10 0
Pipe-makers	3 0 0	2 0 0			

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.

IV.—PERSONS ENGAGED IN CONNECTION WITH BUILDING MATERIALS, ETC.—*continued.*

Saw Mills.

	£ s. d.	£ s. d.		£ s. d.	£ s. d.
nen	3 10 0	2 7 6	Measurers	2 10 0	2 0 0
harpeners	3 0 0	2 0 0	Tailers-out	1 10 0	0 15 0
ners	3 0 0	2 0 0	Labourers	1 16 0	1 10 0
ners' assistants	2 10 0	1 0 0	Draymen	2 10 0	1 10 0
ers	2 10 0	1 15 0			

Quarrying and Stone Crushing.

nen	3 0 0	3 0 0	Stone-breakers	2 2 0	1 10 0
ymen	2 5 0	2 2 0	Stone-feeders	2 0 0	1 16 0
ns	2 10 0	2 0 0			

I (*a*), II (*a*), III (*a*), AND IV (*a*).—MISCELLANEOUS TRADES.

ote.—In order to avoid unnecessary repetition, artisans and others employed in the various ies or works given under Classes I, II, III, and IV, and who are not identified with any one ular industry, are included under this heading.

ne-drivers	3 12 0	2 0 0	Tinsmiths	2 15 0	2 0 0
nen	2 10 0	2 0 0	Painters	2 15 0	1 15 0
rs	3 0 0	2 10 0	Slaters	2 16 0	2 8 0
inists	3 0 0	2 10 0	Plumbers	3 0 0	2 8 0
nen carpenters	3 12 0	3 0 0	Blacksmiths	3 5 0	2 0 0
enters and joiners	3 0 0	2 0 0	Brassfinishers	3 0 0	2 0 0
ers	2 14 0	2 8 0	Watchmen	2 0 0	1 10 0
nen bricklayers	3 12 0	3 0 0	Time-keepers	2 2 0	1 10 0
layers	3 0 0	2 14 0	Foremen labourers	2 14 0	2 8 0
nen masons	3 12 0	3 0 0	General labourers	2 2 0	1 16 0
ns	3 0 0	2 14 0	Carters	2 10 0	1 10 0
erers	2 14 0	2 8 0	Apprentices	1 16 0	0 5 0
hers	2 14 0	2 8 0	Boys	0 10 0	0 7 0
ers	2 14 0	2 5 0			

ote.—In all Government contracts a minimum rate of wages to be paid is set out, forty-eight s being considered as a week's work. On it being proved that any contractor, or, in the event of ortion of the work being sub-let, any sub-contractor, is paying a lower rate than has been set the Minister has the power to cancel the contract. The minimum rates to be paid are decided ding to the locality and other circumstances affecting each particular contract. No standard for general use have been fixed.

V.—PERSONS ENGAGED IN ENGINEERING, METAL WORKS, ETC.

nen	5 0 0	3 0 0	Wheelwrights	3 0 0	2 0 0
neers and draftsmen	3 0 0	2 10 0	Bolt-screwers	2 8 0	2 6 0
inists	3 0 0	2 5 0	Stove-fitters	2 15 0	2 2 0
ers and fitters	3 0 0	2 12 0	Galvanisers	3 5 0	2 5 0
ksmiths	3 5 0	2 0 0	Wire-workers	2 10 0	2 8 0
ers	2 0 0	1 10 0	Cutlers and grinders	2 10 0	1 10 0
noulders	3 5 0	2 0 0	Japanners	2 15 0	2 10 0
dressers	2 8 0	1 18 0	Engine-drivers	2 10 0	1 16 0
acemen	2 8 0	1 15 0	Firemen	2 10 0	1 16 0
rn-makers	3 0 0	2 14 0	Bricklayers	3 0 0	2 14 0
r-makers	2 16 0	2 14 0	Carpenters	2 14 0	2 8 0
ers	2 16 0	2 14 0	Labourers	2 2 0	1 16 0
ersmiths	3 5 0	2 10 0	Carters	2 5 0	1 10 0
moulders	3 5 0	2 0 0	Storekeepers	3 8 0	1 13 0
finishers	3 5 0	2 0 0	Time-keepers	2 6 0	1 13 0
niths	2 17 0	1 10 0	Apprentices	1 10 0	0 5 0
bers and gasfitters	2 14 0	2 8 0	Boys	0 10 0	0 5 0
ers	2 15 0	1 15 0			

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
VI.—PERSONS ENGAGED IN SHIP-BUILDING, REPAIRING, ETC.					
Ship-building, Docks, etc.					
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
Foremen	7 0 0	3 0 0	Ship-joiners	3 0 0	2 8 0
Shipwrights	3 12 0	2 8 0	Marine opticians	3 0 0	2 0 0
Boiler-makers and riveters	3 4 0	2 14 0	Ship's compasses, sextants, and barometer repairers	3 0 0	2 0 0
Pattern-makers	2 18 0	2 5 0			
Bolt-screwers	2 8 0	2 5 0			
Sails and Tarpaulins.					
Foremen	3 0 0	2 10 0	Forewomen	1 10 0	1 0 0
Journeymen	2 16 0	1 10 0	Machinists (females)	1 0 0	0 10 0
Machinists (males)	2 10 0	1 10 0	Apprentices (males)	0 18 0	0 8 0
VII.—PERSONS ENGAGED IN THE MANUFACTURE OF FURNITURE, BEDDING, ETC.					
Foremen	5 0 0	3 5 0	Gilders	2 12 0	1 7 6
Machinists	2 16 0	2 10 0	Fitters	1 16 0	1 0 0
Cabinet-makers	2 17 0	1 15 0	Girls	1 0 0	0 10 0
Polishers	2 11 0	2 0 0	Venetian-blind makers	2 10 0	2 0 0
Chair-makers	2 17 0	2 5 0	Venetian-blind painters	2 0 0	1 10 0
Chair-fitters	2 12 0	2 0 0	Billiard-table makers	2 14 0	2 14 0
Wood-carvers	3 0 0	2 10 0	Ivory turners	3 0 0	3 0 0
Wood-turners	3 0 0	2 5 0	Packers	2 15 0	2 5 0
Upholsterers	2 17 0	2 0 0	Improvers	2 0 0	0 10 0
Upholsteresses	1 5 0	0 15 0	Storemen	2 5 0	1 15 0
Seamstresses	1 5 0	0 15 0	Undertaker's hands	2 10 0	2 0 0
Hair and flock hands	2 2 0	1 15 0	Labourers	2 0 0	1 10 0
Mattress-makers	2 15 0	2 0 0	Apprentices	1 12 0	0 12 0
Mount-cutters	3 0 0	1 16 0	Boys	1 10 0	0 5 0
Frame-makers	2 12 0	1 7 6			

NOTE.—The number of Chinese engaged in the manufacture of furniture in Sydney is not so large as formerly, the introduction of modern machinery enabling manufacturers to successfully compete with them. No reliable information is obtainable as to the wages paid in the Chinese shops, most of the work done there being piecework.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
VIII.—PERSONS ENGAGED IN PRINTING LITHOGRAPHING ESTABLISHMENTS, ETC.					
Readers	4 0 0	2 15 0	Engravers	5 0 0	2 0 0
Readers' assistants	2 0 0	0 15 0	Lithographers—		
Compositors, jobbing offices—			Foremen	5 0 0	3 10 0
Foremen	4 0 0	3 0 0	Journeymen	3 10 0	2 12 0
Journeymen	3 10 0	2 12 0	Improvers	1 10 0	1 0 0
Apprentices	1 5 0	0 8 0	Apprentices	1 5 0	0 6 0
Compositors, newspaper offices—			Artists and illuminators	5 0 0	3 0 0
			,, apprentices	1 5 0	0 7 6
Foremen	7 0 0	4 10 0	Rulers	3 10 0	2 12 0
Journeymen—			Folders	1 7 6	0 8 0
Morning papers	0 1 1	per 1,000 ens.	General hands	1 16 0	1 5 0
Evening papers	0 1 0		Bookbinders—		
Linotype operators	0 0 3		Foremen	4 10 0	3 0 0
Letter-press machinists—			Rulers	4 0 0	2 10 0
Foremen	6 0 0	4 0 0	Binders	3 5 0	2 12 0
Journeymen	4 0 0	2 12 0	Finishers	4 0 0	2 12 6
Improvers	2 6 0	1 10 0	Booksewers (females)	1 10 0	0 19 0
Apprentices	1 5 0	0 7 6	Bookfolders ,,	1 7 6	0 8 0
Stereotypers—			Apprentices	1 5 0	0 6 0
Foremen	5 0 0	3 10 0	Rubber stamp makers	2 2 0	2 0 0
Journeymen	2 5 0	2 0 0	Paper boxes and bags—		
Electrotypers—			Foremen	2 0 0	1 18 0
Foremen	3 10 0	3 0 0	Forewomen	1 10 0	1 0 0
Journeymen	3 0 0	2 12 0	Boys and girls	1 0 0	0 5 0

Occupation.	Maximum	Minimum.	Occupation.	Maximum.	Minimum.
IX.—Persons engaged in the Manufacture of Vehicles, Saddlery, and Harness.					
Coach-building.					
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
emen	3 10 0	2 10 0	Trimmers	3 5 0	2 0 0
penters	3 5 0	2 2 0	Painters	3 0 0	2 0 0
lymakers	3 0 0	2 0 0	Labourers	1 16 0	1 0 0
eelwrights	3 0 0	2 0 0	Improvers	1 16 0	0 15 0
cksmiths	3 0 0	2 0 0	Apprentices	1 10 0	0 5 0
ikers	1 10 0	1 0 0	Boys	0 15 0	0 5 0
emen	2 5 0	1 10 0			
Saddlery and Harness.					
emen	4 0 0	3 0 0	Bagmakers	2 14 0	2 8 0
dlemakers	3 0 0	2 0 0	General hands	2 10 0	1 10 0
rness-makers	3 0 0	2 0 0	Female hands	1 10 0	1 0 0
larmakers	3 0 0	2 0 0	Apprentices	1 0 0	0 5 0
ap hands	2 5 0	1 10 0			
X.—Persons engaged in the Production of Light, Fuel, Heat, etc.					
Electric Light Works.					
emen	3 10 0	3 0 0	Electricians	3 10 0	2 0 0
gineers	4 10 0	2 10 0	Installing workmen	2 10 0	2 0 0
Gas Works.					
emen	6 0 0	3 10 0	Main-layers	2 15 0	1 19 0
kers and Firemen	2 18 0	2 7 0	Service-layers	2 15 0	1 19 0
ters	3 6 0	2 9 6	Lamplighters	1 12 0	1 12 0
mbers	2 15 0	2 15 0			
Fuel.					
emen	2 10 0	2 0 0	Carters	2 0 0	1 10 0
yers and yardsmen	2 0 0	1 10 0	Boys	1 0 0	0 8 0
XI.—Persons engaged in Miscellaneous Trades.					
Basket-making.					
ket-makers	1 10 0	1 5 0	Apprentices and boys	0 10 0	0 5 0
Box and Packing Case Making.					
emen	3 0 0	3 0 0	Engine-drivers	2 8 0	2 8 0
makers	2 8 0	2 5 0	Carters	2 0 0	2 0 0
vers	2 10 0	2 5 0	Boys	1 10 0	0 6 0
hinists	2 8 0	2 8 0			
Broom-making.					
om-makers	1 15 0	1 5 0	Sorters	0 15 0	0 8 0
om-sewers	1 10 0	1 0 0			
Brush-making.					
e hands	2 0 0	1 5 0	Boys	0 15 0	0 6 0
ale hands	1 0 0	0 10 0			
Dye Works.					
rs	2 10 0	1 15 0	Pressers (women)	1 6 0	1 2 0
sers (men)	2 2 0	2 0 0	Feather curlers	1 6 0	1 4 0

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
XI.—Persons engaged in Miscellaneous Trades—*continued.*					
Explosives.					
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
Foremen	3 0 0	2 10 0	Cartridge fillers	2 5 0	1 3 0
Mixers	2 8 0	2 5 0			
Glass Bottle Works.					
Foremen	4 0 0	3 0 0	Glass-cutters	3 0 0	3 0 0
Glass-blowers	3 12 0	2 8 0	Boys	1 2 0	0 8 0
Ornamental Glass Works.					
Artists	3 10 0	3 0 0	Glaziers	2 10 0	2 0 0
Cutters	3 0 0	2 5 0	Polishers	2 8 0	2 0 0
Bevellers	3 0 0	2 5 0	Assistants	1 5 0	0 15 0
Hairdressing and Wig Making.					
Hairdressers	3 0 0	2 0 0	Apprentices	1 10 0	0 5 0
Wigmakers	3 10 0	2 10 0			
Mat-making.					
Foremen	2 0 0	2 0 0	Mat-makers (boys)	0 12 0	0 7 0
Mat-makers (adults)	1 10 0	1 10 0			
Photography.					
Operators	4 0 0	2 0 0	Finishers (girls)	1 0 0	0 10 0
Printers	3 0 0	1 5 0	Retouchers (males)	2 10 0	1 5 0
Assistants	1 10 0	0 5 0	do (females)	1 5 0	0 10 0
Rope Works.					
Foremen	4 10 0	4 0 0	Handspinners	1 16 0	1 13 0
Rope-layers	2 8 0	2 2 0	Machinists	1 10 0	0 18 0
Reelers	2 0 0	2 0 0	Jenny boys	0 15 0	0 8 0
Rubber Works.					
Journeymen	3 0 0	2 0 0	Boys	1 0 0	0 10 0
Soap and Candle Works.					
Foremen	4 10 0	2 5 0	Coopers	2 14 0	2 10 0
Stearine and Candle Makers	3 0 0	1 5 0	General hands	2 0 0	1 16 0
Moulders	1 7 0	0 12 0	Packers	1 7 0	0 15 0
Soap-boilers	4 0 0	2 5 0	Boys and Girls	1 5 0	0 7 0
Soap-boilers' assistants	2 2 0	1 10 0			
Tobacco Works.					
Foremen	5 0 0	3 0 0	Plug-coverers	3 0 0	1 10 0
Journeymen	2 15 0	1 10 0	Stemmers and strippers	1 10 0	0 10 0
General hands (males)	2 10 0	1 10 0	Packers	1 15 0	0 10 0
,, (females)	1 17 6	0 15 0	Box makers	3 0 0	1 10 0
Twisters	3 0 0	1 10 0	Machinists	2 12 0	2 0 0
Pressers	2 10 0	0 15 0			
Umbrella-making.					
Males	2 10 0	1 0 0	Females	1 10 0	0 15 0
Watch-making, Jewellery, etc.					
Foremen Watchmakers	5 0 0	2 10 0	Opticians (males)	2 15 0	2 10 0
,, Jewellers	5 0 0	1 10 0	,, (females)	2 2 0	1 19 0
Stone-setters	5 0 0	4 0 0	Polishers	2 0 0	1 5 0
Instrument-makers	4 10 0	3 12 0			

XI.—PERSONS ENGAGED IN MISCELLANEOUS TRADES—*continued.*

Fire Brigade Employés (City).

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
Foremen	3 10 0	3 0 0	Firemen	3 0 0	2 5 0
Engineers	3 8 0	3 8 0	Probationers	2 0 0	2 0 0
Assistant Officer	3 3 6	3 3 6			

XI (*a*).—PERSONS ENGAGED IN MINING.

Coal-mines.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
	NORTHERN MINES.			SOUTHERN MINES.	
	per ton.			per ton.	
Miners	0 2 11	0 2 11	Miners	0 2 0	0 1 10
	per day.			per day.	
Overmen (underground)	0 13 0	0 10 0	Overmen (underground)	0 13 0	0 10 0
Deputy overmen	0 9 6	0 8 0	Deputy overmen	0 9 6	0 8 0
Shiftmen	0 9 0	0 8 0	Shiftmen	0 8 0	0 7 0
Onsetters	0 8 0	0 6 6	Onsetters	0 8 0	0 7 0
Banksmen	0 7 0	0 6 6	Banksmen	0 7 6	0 7 0
Screenmen	0 7 6	0 3 0	Screenmen	0 7 6	0 6 6
Mechanics	0 10 0	0 8 6	Mechanics	0 10 6	0 8 6
Engineers	0 12 0	0 9 0	Engineers	0 9 0	0 8 0
Engine-drivers	0 9 0	0 9 0	Engine-drivers	0 9 0	0 8 0
Enginemen and firemen	0 7 6	0 6 0	Enginemen and firemen	0 8 0	0 6 0
Screen-overmen	0 9 0	0 7 0	Screen-overmen	....	....
Overmen (overground)	0 9 0	0 8 6	Overmen (overground)	....	....
Locomotive-engine stokers	0 7 6	0 6 6	Locomotive-engine stokers	0 7 0	0 6 0
Platelayers	0 8 6	0 6 6	Platelayers	0 9 0	0 7 0
Furnacemen	0 8 0	0 7 6	Furnacemen	0 7 0	0 6 0
Harness-makers	0 8 0	0 8 0	Harness-makers	0 8 6	0 8 0
Packers	0 3 0	0 1 9	Packers	0 6 6	0 6 6
Wheelers	0 7 6	0 5 0	Wheelers	0 8 0	0 6 6
Water-bailers	0 8 0	0 7 0	Water-bailers	0 8 0	0 6 6
Horse-drivers	0 8 0	0 5 0	Horse-drivers	0 8 0	0 6 0
Stablemen	0 7 6	0 7 0	Stablemen	0 8 0	0 7 0
Labourers	0 7 0	0 6 0	Labourers	0 6 6	0 6 0
Flatters	0 7 6	0 7 0	Flatters	0 7 6	0 6 0
Trappers	0 3 6	0 3 0	Trappers	0 4 0	0 3 6
Boys	0 5 0	0 2 3	Boys	0 3 6	0 3 0

NOTE.—The Union rules fix 43½ hours as the maximum working hours per week for miners, and 48 hours for those engaged in mechanical trades about the mines. The actual time worked during 1896 did not average more than 32 hours for miners and 45 hours for mechanical trades.

Silver-mines, Broken Hill District.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
Mechanics and surface hands—	per day.		Mechanics and surface Hands—*continued.*	per day.	
Engineers	0 10 6	0 9 0	Labourers	0 7 6	0 7 6
Masons and bricklayers	0 10 6	0 10 0	Boys	0 7 6	0 2 6
Carpenters	0 10 6	0 9 0	Tappers	0 9 0	0 9 0
Blacksmiths	0 10 6	0 9 0	Slag-wheelers	0 8 4	0 8 4
Blacksmiths' strikers	0 7 6	0 7 6	Feeders	0 9 0	0 9 0
Engine-drivers, stationary	0 9 0	0 8 0	Charge-wheelers	0 8 4	0 8 4
" hoisting	0 10 0	0 9 0	Underground Hands—		
Firemen	0 9 0	0 8 4	Miners	0 9 0	0 9 0
Firemen's assistants	0 8 4	0 5 0	Brace and platmen	0 8 4	0 8 4
Boilermakers	0 10 6	0 9 0	Truckers	0 7 6	0 7 6
Tinsmiths	0 10 0	0 10 0	Ore-dressing Hands—		
Horse-drivers (exclusive of time occupied in cleaning and harnessing)	0 8 4	0 8 0	Shift washers	0 9 0	0 9 0
			Engine-drivers, stationary	0 9 0	0 9 0

NOTE.—Wages are calculated at per day of eight hours. All time worked over eight hours per day is paid for at the rate of time and quarter (Sundays not excepted).

XI (*b*).—PERSONS ENGAGED ON RAILWAYS AND TRAMWAYS.

Salaried Staff.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
	per annum.			per annum.	
	£	£		£	£
Station-masters	400	150	Operators	200	60
Officers-in-charge	220	130	Clerks	450	125
Night Officers	185	120	Junior Clerks	120	30

Wages Staff.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
	per day.			per day.	
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
Locomotive Engine-drivers	0 15 0	0 11 0	Carriage and Waggon Examiners	0 13 0	0 7 6
„ Firemen	0 10 0	0 8 0	Carpenters	0 13 0	0 7 6
„ Cleaners	0 10 0	0 4 0	Painters	0 12 0	0 8 0
Fitters	0 15 0	0 8 0	Stationary Engine-drivers	0 10 6	0 7 6
Turners	0 12 8	0 8 0	Fuelmen	0 9 0	0 6 6
Machinists	0 12 0	0 7 0	Oilers	0 8 0	0 5 0
Boiler-makers	0 14 0	0 8 0	Pumpers	0 10 0	0 6 0
Boiler-makers' Assistants	0 8 6	0 6 6	Guards	0 12 0	0 8 6
Moulders	0 14 0	0 8 0	Assistant Guards	0 8 6	0 8 0
Blacksmiths	0 16 0	0 8 0	Porters	0 10 0	0 6 0
Strikers	0 8 2	0 6 6	Junior Porters	0 5 0	0 2 6
Tinsmiths	0 11 8	0 9 8	Signalmen	0 11 6	0 7 0
Pattern-makers	0 16 0	0 10 0	Shunters	0 11 0	0 7 0
Gasfitters	0 12 0	0 6 6	Gangers	0 12 0	0 8 6
Carriage and Waggon Builders	0 14 6	0 8 0	Fettlers and Labourers	0 9 0	0 6 6

XI (*c*).—PERSONS ENGAGED IN SHIPPING.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
	per month.			per month.	
First Officers (Steamers)	15 0 0	10 0 0	Firemen	8 0 0	8 0 0
„ (Sailing Vessels	8 0 0	6 10 0	Boatswains	7 0 0	7 0 0
Second Officers (Steamers)	12 0 0	10 0 0	Seamen (Steamers)	6 0 0	6 0 0
„ (Sailing Vessels	6 0 0	5 0 0	„ (Sailing Vessels)	4 0 0	3 10 0
Third Officers (Steamers)	10 0 0	9 0 0	Trimmers	6 0 0	6 0 0
Chief Engineers	22 0 0	18 0 0	Sea Cooks	11 0 0	5 0 0
Second Engineers	16 0 0	14 10 0	Chief Stewards	12 0 0	10 0 0
Third Engineers	13 10 0	12 10 0	Assistant Stewards	5 0 0	3 0 0
Fourth Engineers	11 0 0	10 10 0			
	per hour.			per hour.	
Wharf Labourers and Lumpers	0 1 0	0 0 10	Wharf Labourers and Lumpers (Overtime)	0 1 6	0 1 0
				per week.	
Wharf Labourers and Lumpers (constant hands)				2 5 0	2 2 0

NOTE.—The rates quoted for steamers are those paid by owners belonging to the Steamship Owners' Association of Australasia. Some owners of small steamers pay lower rates, and on ships trading with the islands and foreign parts the monthly rates paid to seamen range from £3 15s. to £4.

XI (*d*).—PERSONS ENGAGED IN OTHER OCCUPATIONS.

Coaching.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
	per week.			per week.	
Carters and Trollymen	2 2 0	1 16 0	Grooms	1 10 0	1 0 0
Drivers (Licensed)	2 5 0	1 10 0	Omnibus Drivers	2 0 0	1 5 0
Farriers	2 10 0	2 2 0	Omnibus conductors	0 12 6	0 10 0

XI (*d*).—PERSONS ENGAGED IN OTHER OCCUPATIONS—*continued.*

Attendance and Service.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
	per week.			per week.	
Males—	£ s. d.	£ s. d.	Females—	£ s. d.	£ s. d.
Barmen	1 5 0	0 15 0	Barmaids	1 2 6	0 15 0
Butlers	1 0 0	0 15 0	Cooks	1 0 0	0 12 0
Coachmen	1 5 0	0 15 0	General Servants	0 15 0	0 8 0
Cooks	3 0 0	0 15 0	House and Parlour Maids	0 12 0	0 8 0
Dairymen	0 16 0	0 10 0	Laundresses	1 0 0	0 12 0
Gardeners	1 5 0	0 15 0	Nursemaids	0 10 0	0 5 0
Gardeners' Labourers	0 15 0	0 10 0	Waitresses	0 15 0	0 10 0
Scullerymen	0 15 0	0 8 0			
Waiters	1 0 0	0 15 0			

NOTE.—Board and lodging is provided in addition to the wages quoted.

Shop Assistants.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
Males—			Females—		
Butchers	3 10 0	2 0 0	Milliners	3 0 0	0 15 0
Drapers	3 0 0	1 10 0	Drapers	2 0 0	0 15 0
Grocers	2 15 0	1 10 0	General	2 0 0	0 10 0
Ironmongers	3 10 0	1 10 0	Girls	0 5 0	0 2 6
General	2 5 0	1 10 0			
Boys	0 10 0	0 7 0			

NOTE.—At the Abattoirs butchers are paid by piecework, and when in full employment are able to earn over £7 per week, out of which they have each to pay an assistant.

In some shops, assistants (male and female) are, in addition to the wages here quoted, provided with a midday meal, and, when working late, with tea.

Municipal Employés (City).

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
Overseers	3 6 0	2 14 0	Carters	3 3 0	3 3 0
Timekeepers	3 6 0	2 15 0	Inspectors of Wood-blocking	2 8 0	2 8 0
Engineers	3 15 0	2 14 0	House Inspectors	2 8 0	2 8 0
Engine-drivers	3 6 0	3 6 0	Park Rangers	2 5 0	2 5 0
Firemen	2 10 0	2 2 0	*Watchmen	2 9 0	2 9 0
Masons	3 0 0	3 0 0	Bailiffs	3 0 0	3 0 0
Plumbers	3 0 0	2 8 0	Messengers	2 8 0	2 8 0
Blacksmiths	3 0 0	2 2 0	Tar-pavers and Asphalters	2 2 0	2 2 0
Carpenters	3 9 0	2 14 0	Street Cleaners	2 2 0	2 2 0
Gangers	3 0 0	2 5 0	Metal Gatherers	1 10 0	1 10 0
Labourers	2 2 0	2 2 0			

* Working 7 days per week.

XI (*e*).—PERSONS ENGAGED IN AGRICULTURAL AND PASTORAL PURSUITS.

Occupation.	Maximum.	Minimum.	Occupation.	Maximum.	Minimum.
Boundary Riders	0 17 6	0 15 0	Farm Labourers	0 15 0	0 10 0
Bush Carpenters	1 0 0	0 15 0	Milkers	0 15 0	0 10 0
Cooks (Station)	2 0 0	1 0 0			
	per 100 sheep.				
Shearers	1 0 0	0 17 6			
	per annum.			per annum.	
	£	£		£	£
Married Couples (wife, cook)	60	50	Stockmen	52	50
" (husband, cook)	75	60	Vignerons	52	50

NOTE.—Except in the case of shearers, board and lodging, or rations, are provided in addition to the rates quoted.

TRADE UNIONS.

The subject of Trade Unionism has been dealt with by legislation in only one instance in this colony—the Trade Union Act of 1881. This measure enacts that the purposes of any trade union shall not be deemed to be unlawful, so as to render its members liable to criminal prosecution for conspiracy or otherwise, merely because they are in restraint of trade; nor for such a reason shall any agreement or trust be rendered void or voidable. It is declared that nothing in the Act shall enable any Court to entertain any legal proceeding instituted with the object of directly enforcing or recovering damages for the breach of agreements between the members of a trade union, concerning the conditions upon which they shall transact business, employ, or be employed, or for the payment of subscriptions or penalties to the union, or for application of the funds to certain specified purposes; but at the same time the Act is not to be deemed to make such agreements unlawful. Neither the Friendly Societies Act nor the Companies Act is to apply to trade unions, nor can the unions be registered under either of those Acts. Provision is made, however, for the registration of trade unions under the present Act, provided always that if one of the purposes of such trade union be unlawful the registration shall be void. The Registrar of Friendly Societies is appointed Registrar of Trade Unions, and provisions are made for the appointment of trustees, treasurers, etc., for the establishment of rules, the preparation of annual returns, dissolution or amalgamation, change of name, and other matters. The term "Trade Union" is defined to mean "any combination, whether temporary or permanent, for regulating the relations between workmen and employers, or between workmen and workmen, or between employer and employers, for imposing restrictive conditions on the conduct of any trade or business, whether such combination would or would not, if this Act had not been passed, have been deemed to have been an unlawful combination by reason of some one or more of its purposes being in restraint of trade." Few of the trade unions have complied with the provisions of the Act relative to returns; consequently particulars in regard to their membership cannot be given with any accuracy.

No union for the purpose of regulating the mutual relations of workmen and employers has so far been registered. The unions have in every case been established for the promotion of the interests of one class or the other. Under the provisions of the Act there had been 161 unions registered up to the end of 1895, of which 8 were societies promoted by employers and 153 by workmen. Many of these unions are not now in existence; but it is impossible to say how many remain at the present time, as the Registrar has been unable to reach a large number of the societies. Of the 161 unions registered, only the following seventeen supplied the statutory return of their operations in 1895:—

Name of Union.	Amount of Funds, 31st December, 1894.	Receipts, 1895.	Expenditure, 1895.	Amount of Funds, 31st December, 1895.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Amalgamated Miners' Association—Hunter River District	2,180 14 11	2,362 2 10	3,725 5 6	817 12 3
Masters' and Engineers' of Harbour and River Steamers Association of N.S.W.	929 2 1	313 1 4	343 15 0	898 8 5
N.S.W. Locomotive Engine Drivers', Firemen, and Cleaners' Association	1,469 11 9	654 9 4	557 3 8	1,566 17 5
Sydney Progressive Society of Carpenters and Joiners	265 10 3	38 8 0	62 0 0	241 18 3
Gas Stokers' Protective Association of New South Wales (half-year)	3 18 3	26 10 6	21 17 8	8 11 1
Operative Sailmakers' Trade and Burial Society of Sydney	151 9 4	20 13 4	6 0 6	166 2 2
N.S.W. Amalgamated Railway and Tramway Service Association	266 15 11	387 16 9	84 11 2	570 1 6
Protection of Trade Marks and Exchange Association (Limited)	5 1 7	59 14 10	68 6 4	....
Newcastle Typographical Association	94 12 5	67 3 3	56 17 2	104 18 6
United Society of Boilermakers and Iron Ship Builders of New South Wales	2,199 8 10	474 6 1	217 14 10	2,456 0 1
New South Wales Protective Association of Colliery Engine Drivers	7 16 3½	64 13 2	49 8 0	23 1 5½
Australasian Society of Engineers	331 9 7	120 4 11	50 3 6	401 11 0
Australian Fishermen's Benefit and Protective Society of New South Wales	109 11 9	38 2 0	41 6 6	106 7 3
Amalgamated Hotel and Caterers Employees' Union in New South Wales	98 13 4	113 0 5	91 18 1	119 15 8
Barrier Ranges Engine Drivers' and Firemen's Association	5 17 1	37 16 6	30 3 4	13 10 3
Journeymen Coopers' Society of New South Wales	281 0 6	148 6 1	128 15 0½	300 11 6½
Amalgamated Miners' Association of Australasia—Barrier, Colonial District, No. 3	....	....	....	235 13 4

Co-operative Societies.

Part V of the Friendly Societies Act of 1873 deals with the registration of Co-operative Trading and Industrial Societies. It provides that "any number of persons, not being less than seven, may establish a society under this Act for the purpose of carrying on any labour, trade, or handicraft, whether wholesale or retail, except the business of banking, which the members of such society voluntarily unite to carry on or exercise, and of applying the profits to any lawful purposes; and the buying and selling of land, and the working of mines and quarries, shall be deemed to be a trade within the meaning of this section." The Act further requires the word "Limited" to be the last word in the name of every society registered, and limits the interest to be held or claimed by any member in any society to the sum of £200.

The provisions of the Act relating to Co-operative Societies have been made use of by the public to a very limited extent. Sixty-two societies have been registered since the Act came into force, but of these there were not more than seventeen in existence in the middle of 1896. The balance-sheets, published at various dates between November, 1895, and September, 1896, and extending over periods of three, six, and twelve months, show that these seventeen societies had altogether a paid-up capital of £17,416, with reserve and contingency funds, amounting to £15,278, and balances at the credit of profit and loss accounts of £6,858. Their liabilities, exclusive of liabilities to shareholders, amounted to £12,649, viz., bank overdrafts, £2,225; bills payable and sundry creditors, £6,780; and other liabilities, £3,644; while their assets were given as £51,773, viz., stock and fittings, £26,956; sundry debtors, £7,660; bank and cash balances, £1,860; and other assets, £15,297. The seventeen societies had, therefore, a total excess of assets over liabilities of £39,124.

TRADES CONCILIATION AND ARBITRATION.

After the termination of the maritime strike of 1890 a Royal Commission was appointed for the purpose of inquiring into the causes and means for prevention of industrial disputes. The introduction of a Bill to provide for the establishment of a Council of Conciliation and Arbitration into Parliament early in 1892 was one of the results of this Commission. The bill became law, and was to continue in force for four years from March 31, 1892. Under it two Councils were established—a Council of Arbitration, consisting of three, and a Council of Conciliation, consisting of eighteen members. One of the former and nine of the latter were elected by a majority of the organisations representing the interests of the employers, and a similar number by a majority of the organisations representing the employés. The President of the Council of Arbitration was appointed by the Governor and Executive Council on the recommendation of the other two members of the Council. The regulations under the Act were carried out by an officer called the Clerk of Awards. From the time the two Councils were appointed to the end of 1894 only one case of conciliation and one of arbitration were dealt with by them. Negotiations were opened in a large number of other cases, but without success. The principle of the Act being a purely voluntary one, the Councils had no power to bring either party to a dispute before the industrial tribunal. Parliament having refused to vote supplies for the continuance of the Councils during 1895, they came to an end on December 31, 1894. The Act itself, however, remained in force until March 31, 1896.

In the early part of 1895 the Minister for Public Instruction was created Minister for Labour and Industry, and took over the Labour Bureau. As has already been mentioned on a previous page, a Factories and Shops Act was passed in 1896, and is administered by the Minister for Labour and Industry, assisted by a staff of inspectors.

PRODUCTION.

In other chapters of this work details have been given of the various producing industries, so that it will not be necessary to reproduce them here. It will be interesting, however, to group these industries together in one table in order that some idea may be given of their respective importance. From the total obtained by adding together the production of the various industries there must be deducted something to allow for products twice included, first as the output of one class of industry, and secondly as the raw material of a more advanced industry. Under agriculture is included the value of green food, which may be termed a raw material in dairying; grain for swine and poultry feeding also appears twice; coal, coke, and timber used in mining appear under mining and forestry, and afterwards in the value of metals obtained by smelting; and there are other small items of a like character. It must be understood that so far as the manufacturing industry is concerned, the production is net, raw material in all its forms, including coal, being excluded from the totals given. The value of material twice included is about £199,700, which forms a deduction from the total of the following table:—

Industry.	Hands employed.	Value of Production.
	No	£
Manufacturing and allied processes	65,300	7,955,000
Agriculture	67,180	5,321,570
Dairying and poultry farming	23,634	2,546,000
Pastoral industry	30,323	11,774,000
Mineral production....................................	39,938	4,354,690
Forestry and fisheries	7,200	715,000
Total	233,575	32,666,260
Deduction for raw material twice included		199,700
Net production ....£		32,466,560

The figure £32,466,560 just arrived at is less than the value of production in 1891 by £4,273,200. This fall is due entirely to the decline in prices, as in every branch of industry, except manufacturing, there has been a distinct advance since the year named. If the same prices had been obtained last year for produce as were obtained in 1891 the value of production would have been £38,959,870. The following table shows the value of production in various years from 1871 onwards; additional columns have been added, so as to show the value of production if prices had remained unaltered, and also the value if 1896 prices only had been obtained:—

Year.	Actual Value of Production.	Value if 1871 prices had been obtained.	Value if 1896 prices had been obtained.
	£	£	£
1871	15,379,000	15,379,000	8,210,890
1888	25,180,000	34,972,200	18,707,280
1891	36,739,760	57,405,900	30,616,470
1896	32,466,560	60,809,900	32,466,560

The foregoing table is not given with a view of showing that the difference between what was obtained for the production of the colony in 1896 and the amount which would have been realised had 1871 prices prevailed represents a loss; on the contrary, as has been elsewhere pointed out, although the colony has suffered by the fall in prices, her loss is chiefly occasioned by the fact that she is a debtor country, and that the fall in import values has not been equivalent to the fall in export values. What the table really does show is that the volume of production has been more than sustained. Compared with population, the value of production shows an average of £25 4s. 3d. per head, of which £19 1s. 5d. represents the yield of industries directly connected with the soil, a result which very few countries can claim to equal.

INTERNAL COMMUNICATION.

Roads and Bridges.

FOR many years settlement in New South Wales was restricted to the narrow belt of land shut in between the Blue Mountains and the sea. Several main roads were formed through this country within a few years after the foundation of the colony. These roads connected the infant towns of Parramatta, Liverpool, Windsor, and Penrith with the metropolis, and were constructed entirely by bond labour. The abrupt wall of sandstone rising on the farther side of the Nepean barred all access to the interior of the country. As early as the year 1796 George Bass made an attempt to cross the mountain range, but returned after an unsuccessful journey, reporting that it was impossible to find a passage even for a person on foot. In 1813 a protracted season of drought, attended by considerable losses amongst the stock, brought home very clearly to the settlers the conviction that the future of the colony entirely depended upon the extension of grazing land beyond the narrow limits within which they were then hemmed. In the month of May of that year Mr. Gregory Blaxland, Mr. W. C. Wentworth, and Lieutenant Lawson attempted to find a passage across the mountains. After meeting with difficulties which seem astonishing enough to the present generation, who have seen a railway carried over the same track by which Bathurst may be reached in a few hours, these gentlemen succeeded in opening a way—sometimes by creeping through dense forests, at others by scaling tremendous precipices—to the vast plains lying west of the Great Cordillera of Australia. They returned on the 6th June, and shortly afterwards Governor Macquarie sent a party of surveyors, under Mr. George W. Evans, Deputy Surveyor-General, to report on the practicability of making a road. The report was favourable, and the construction of the great western highway was at once commenced, the work being performed by gangs of bond labourers. The track thus made formed a continuation of the Great Western Road from Penrith, and it was completed as far as Bathurst by the 21st January, 1815.

The discovery of the Bathurst Plains and the completion of the mountain road gave so great an impetus to settlement that it was found impossible to keep pace in the matter of roads with the demands of the settlers. The Government, therefore, contented itself with maintaining the roads already constructed, and extending them in the direction of the principal centres of settlement. For many years these main roads were the only ones which received attention. This would perhaps have been sufficient had the progress of settlement subsequent to 1850 been similar to that made during previous years. Such, however, was not the case. The gold discovery entirely altered the circumstances of the colony, and during the period of excitement and change which followed that remarkable event so many new roads were opened, and traffic increased so largely, that the general condition of the public highways was by no means good. The Roads Department was formed as far back as 1857, and although good service was done by the road pioneers before that date, the modern system of roadmaking may be said to have begun with the creation of the department. It was not, however, until 1864 that the whole of the roads, both main and subordinate, received attention at the hands of the State.

The principal main roads of the colony are:—

Northern Road—length, 405 miles, from Morpeth to Maryland, New England.

Western Road—length, 338 miles, from Sydney to Warren through Bathurst, Orange, and many other important townships; thence prolonged to the Darling, at Bourke, by a line 175 miles in length.

Southern Road—length, 385 miles, from Sydney to Albury. This road was, before the construction of the railway, the great highway between Sydney and Melbourne.

South Coast Road—length, 250 miles. This road, after leaving Campbelltown, ascends the coast range, along the top of which it runs as far as Coal Cliff. It then traverses the Illawarra district, parallel to the coast, and passes through the rich lands watered by the Shoalhaven, Clyde, and Moruya, as far as Bega, whence it extends, as a minor road, to the southern limit of the colony.

None of these roads has now the importance which it formerly possessed. The railways of the colony for the most part follow the direction of the main roads, and attract to themselves nearly all the through traffic. The tendency now is to make the roads act as feeders to the railway, by converging the traffic from outlying districts towards convenient stations along the line.

The expenditure by the Government upon the different roads is made in accordance with the recommendation of the Road Superintendent for the district, which is based upon the requirements for each road. Formerly the roads of the colony were divided into seven classes according to their importance, and the yearly expenditure ranged from £50 per mile on roads in the first class to £5 per mile on those in the seventh class.

The network of roads spreading over the face of the colony is divided, for purposes of maintenance, into road districts and road trusts. The whole colony is divided into sixty-two road districts, each of which is placed in the charge of a Superintendent, who is directly responsible to the Commissioner for Roads. The Road Superintendents have the greater part of the road communication of the colony outside the municipal boundaries, as well as a portion of the roads within municipalities, under their care. The road trusts have the supervision of the expenditure of certain grants for the maintenance of roads in districts which are chiefly of minor importance; there are, however, certain important roads in the vicinity of the metropolis governed by trusts. The length of roads in charge of Road Superintendents on the 30th June, 1897, was 38,881 miles, while about 818 miles were under the care of road trusts. There were also 1,099 miles within municipal areas, which were subsidised by the Department, making a total of 40,798 miles under control. Of the 38,881 miles in charge of Road Superintendents, 7,277 miles were metalled, ballasted, or gravelled; 5,367 miles were formed and drained, and all necessary culverts constructed, but were not metalled; 5,375 miles were cleared and drained; 8,231 miles were cleared only; and 12,631 miles were roads which wind their way through the forests of the interior, chiefly along the lines marked out by the cart-wheels of the foremost settlers, and form, in dry weather, adequate means of communication for the settlers, although it must be acknowledged that in seasons of rain these roads are frequently impassable. Besides the roads mentioned above, there were 1,486 miles of mountain passes. Many of these passes presented the most formidable difficulties, and their construction reflects great credit upon the engineering skill of the officer, now deceased, who for so many years designed and supervised the construction and maintenance of the roads and bridges of the colony.

Many of the earliest bridges erected in the colony were of stone, and are still existing. Those erected in the period following the extension of settlement to the interior were chiefly of timber, and have since been replaced, after a life of about twenty-five years. Nearly all the large bridges of recent date are of iron or steel, and some of them have been erected under engineering conditions almost unique, owing to the peculiarity of the river-flow in certain parts of the country. There were altogether, on the 30th June, 1897, 3,262 bridges of 20 feet span and over, comprising 8,256 spans, covering a length of 281,086 feet; while there were also 32,671 culverts under 20 feet span, 486,907 feet in length; and 15,534 causeways, of a total length of 377,298 feet. Where the traffic has not warranted the construction of bridges, or where local circumstances have rendered them inadvisable, punts or ferries have been introduced. In June, 1897, there were 10 iron punts, 94 timber punts, and 4 horse-boats. Of these punts and boats, 7 were worked by steam-gearing and wire-rope, 82 by hand-gearing and wire-rope, and 19 by wire-rope without gearing. In addition to these, the Department had charge of one steam-launch, 10 iron and 59 timber flood-boats, 120 other boats, and 10 punt-slips for the execution of repairs. On an average, 1,504 men were employed during each month of the working year, in addition to 5,200 men engaged by contractors, making a total of 6,704 men.

The use of roads as the main arteries along which traffic from the metropolis to the interior flows has been superseded by the railways; but the roads remain not only the sole means of communication throughout a large part of the interior, but as most valuable feeders to the railway system of the country. No revenue is directly derived from roads, but their indirect advantages to the country have been very great, and after the lands and the railways they form the largest item of national property. It is estimated that £17,355,000 has been expended on roads and bridges since 1857, and their present value to the State, allowing for depreciation, cannot be less than £14,000,000. Their indirect value cannot be calculated; but as an instance of the change brought about by the system of road construction, it may be mentioned that after the organization of the Roads Department on its present basis the cost of carriage of goods by road and the time of transit were reduced by more than one half, as will appear from the following statement:—

Main Roads.	Distance.	Carriage by Road, 1857.		Carriage by Road, 1864.	
		Time in transit.	Cost per ton.	Time in transit.	Cost per ton.
	miles.	days.	£ s. d.	days.	£ s. d.
Sydney to Goulburn	134	17½	12 5 0	7½	3 15 0
„ Bathurst...............	145	23½	15 10 0	11	6 10 0
Newcastle to Murrurundi.......	119	21	9 0 0	8	6 10 0

The progress exhibited during these seven years is very great. Part of the improvement may without hesitation be ascribed to better roads; but the decline in the demand for teams consequent on the cessation of the gold rush was also a cause of the lessened cost of transit. The price of carriage by road has not declined since 1864, most of the traffic being through districts remote from the centres of population, where the requirements of the teamsters are costly to supply. The roads followed by the teams are those leading to the railway lines, and the loading consists for the most part of station supplies, wool, and other produce. The rates vary according to the distance and the nature of the country traversed, but the following scale may be taken as typical of the ordinary charges for outward loading—that is, from the interior to the railways. Inward goods average about 1d. per mile less than those outward :—

	s.	d.	
Up to 40 miles	1	6	per ton per mile.
,, 100 ,,	1	0	,,
,, 200 ,,	0	11	,,
,, 300 ,,	0	10	,,

A slight consideration of these figures will be sufficient to show how greatly the business of the country has been facilitated by the construction of railways. If 100 miles be assumed as the average distance which goods are carried, the prevailing rate by teams would be 12d. per ton per mile. On the railways, as far back as 1872, the carriage was only 3·6d., and to-day it averages not more than 1·6d. It would be overstating the case against road carriage, however, if the latter figure were compared with the average price charged by teams; but a comparison in every respect perfectly fair can be made between the cost of carrying general merchandise by rail, which is only 2·53d. per ton per mile, and that of goods by teams, which, as stated above, is 12d. per ton per mile. The saving by rail carriage is, therefore, nearly 80 per cent., and if it had been possible for the whole of the railway traffic for the year 1896 to be carried by teams, the cost would have been £7,357,200 instead of the sum of £1,551,143 (exclusive of terminal charges) actually charged by the Railway Commissioners. In the portion of this chapter devoted to goods traffic on the railways, particulars are given of the gradual cheapening of this form of carriage during the past twenty years.

During the last three years the old time spectacle might frequently be seen of huge loads of goods being carried along the main roads within sight of the railway lines. The price paid to carriers was not usually disclosed, but from the nature of things it was probably less than would have been paid to the Railway Commissioners for the same service. The competition of teams with the railway for the carriage of a certain class of goods was made possible by the extreme cheapness of fodder and the low price of horses, and to the circumstance that a number of carriers could not otherwise find employment; moreover, it only lasted for a few months in each year, and did not affect the railway earnings to any appreciable extent.

The total expenditure on account of roads of all classes during the year ended 30th June, 1897, was £676,210. This sum, however, included the administrative expenses of the Department, and the expenditure on punt approaches and similar works incidental to the road traffic of the country. In the following statement is given the expenditure on account of the construction and maintenance of roads and bridges since 1857, with details since the year 1881. It is plain that, until recent years, this form of expenditure increased, at a rate very much faster than that of the general population:—

Year.	Expenditure by Roads Department.	Expenditure by Trustees.	Total.
	£	£	£
1857 to 1880	5,430,923	782,907	6,213,830
1881	484,567	23,186	507,753
1882	577,212	24,722	601,934
1883	613,847	24,938	638,785
1884	750,584	27,722	778,306
1885	800,962	24,404	825,366
1886	628,379	28,414	656,793
1887	721,994	45,433	767,427
1888	663,929	31,503	695,432
1889	632,398	31,361	663,759
1890	770,809	34,500	805,309
1891	965,688	31,990	997,678
1892	859,028	30,605	889,633
1893	676,233	30,330	706,563
*1894-5	800,620	30,034	830,654
1895-6	757,115	19,285	776,400
1896-7	666,300	9,910	676,210
Total	16,800,588	1,231,244	18,031,832

* 1894 and first half of 1895.

Besides the roads maintained by the Government, there existed, at the close of the municipal year in February, 1896, 7,117 miles of roads and streets belonging to and largely maintained by the municipalities of the colony. Of these roads, 2,265 miles were regularly formed and metalled, gravelled or ballasted, and 1,335 formed; while 1,591 miles were cleared, and 1,926 miles not cleared. The value of these roads is estimated at £4,780,000; but this sum must be looked upon as an approximation only, as the information obtained from the various municipalities is not complete.

RAILWAYS.

The first attempt to introduce into New South Wales the blessing of railway communication, which has so revolutionised the commerce of the older parts of the world, was made in 1846. On the 26th August of that year a meeting was held in Sydney at which it was decided to survey a line to connect the metropolis with the city of Goulburn. Two years afterwards, on the 11th September, 1848, the Sydney Tramroad and Railway Company was formed, with a capital of £100,000, having for its object the construction of railways to Parramatta and Liverpool, with possible extensions, in course of time, to Bathurst and Goulburn. No time was lost in breaking ground, and on the 3rd July, 1850, the Hon. Mrs. Keith Stewart, daughter of the Governor, Sir Charles Fitzroy, turned the first sod of the first railway constructed in Australia. The affairs of the Sydney Tramroad and Railway Company, however, did not prosper as the promoters had expected they would do, and it was found necessary to transfer the property of the company to the Government of the colony. Meanwhile another company had been started in 1853, with the object of constructing a railway from the city of Newcastle to Maitland; but it met with no more success than the Sydney company, and shared the same fate. On the Government taking possession of the property of the defunct companies, however, the works were carried on with more vigour, and on the 26th September, 1855, the line from Sydney to Parramatta was declared open for public traffic, and the extension to Goulburn was opened on the 27th May, 1869.

The progress of railway construction during the twenty years which followed the opening of the first line was very slow, for in 1875 the length of the lines in operation had only reached 435 miles, or at the rate of 21¾ miles opened per year. Not a single mile of railway was opened during the years 1865 and 1866; but in 1867 the construction of these great commercial highways received a fresh impetus, and continued to advance yearly until 1872, when it stood still for another period of two years, during which only 5 miles of line were thrown open to traffic. During 1875, 33 miles were opened, and from the succeeding year till 1889 still greater activity prevailed, 1,748 miles being constructed during this period, or a yearly average of 125 miles; but this rate of increase received a check, and only 14 miles were opened during the three following years. There were, however, 154 miles opened during the railway year ending June, 1893; 150 miles in the succeeding year; and 30 miles in the year ended June, 1895. In the following working year no lines were opened; but during the year ended June, 1897, light lines of the "Pioneer" class were opened as follows:—Jerilderie to Berrigan, 21 miles 65 chains; Parkes to Bogan Gate, being part of the Parkes-Condobolin line, 23 miles 38 chains; and Narrabri to Moree, 63 miles 10 chains. Lines of the "Pioneer" class are in course of construction from Bogan Gate to Condobolin, and from Nevertire to Warren, the former 39 miles 22 chains in length, the latter 12 miles 3 chains. In each case the line will be opened for traffic by the close of 1897. Parliament has also sanctioned the construction of lines from Tamworth to Manilla, and from Berrigan to Finley, and they will shortly be taken in hand.

The progress in construction of the State railways of the colony may be traced in the statement given below. It is necessary to point out that the mileage includes the Campbelltown-Camden Tramway, the Kogarah-Sans Souci Tramway, and the Yass Tramway, which are worked with the railways, and that after 1887 the year shown must be taken as ending on the 30th June, a change in the working year having been made in 1888 :—

Year.	Opened during the year.	Total opened.	Year.	Opened during the year.	Total opened.
	miles.	miles.		miles.	miles.
1855	16	16	1877	90	598
1856	9	25	1878	90	688
1857	17	42	1879	45	733
1858	15	57	1880	115	848
1859	nil.	57	1881	148	996
1860	13	70	1882	282	1,278
1861	4	74	1883	52	1,330
1862	24	98	1884	301	1,631
1863	27	125	1885	114	1,745
1864	20	145	1886	162	1,907
1865	nil.	145	1887	151	2,058
1866	nil.	145	1888	68	2,126
1867	60	205	1889	57	2,183
1868	44	249	1890	10	2,193
1869	70	319	1891	1	2,194
1870	21	340	1892	3	2,197
1871	19	359	1893	154	2,351
1872	38	397	1894	150	2,501
1873	5	402	1895	30	2,531
1874	nil.	402	1896	nil.	2,531
1875	33	435	1897	108	2,639
1876	73	508			

Of the 2,639 miles in operation on the 30th June, 1897, there were 2,476 miles of single line, 154½ miles of double line, and 8½ miles of line with four tracks. The quadrupled lines, which extend from Sydney to Flemington on the suburban line, were brought into use during the year ended June, 1892. The double lines extend from Flemington to Penrith, 26 miles ; from Granville to Picton, 39½ miles ; from Illawarra Line Junction to Waterfall, 23 miles ; from Strathfield to Hornsby, 14 miles ; from Newcastle to Maitland, 20 miles ; from St. Leonards to Milson's Point, 3 miles ; from Redfern to Darling Harbour, 1½ miles ; from Sydenham to Belmore, 5 miles ; from Teralba to Adamstown, 8 miles ; while various short lengths of line make up the remaining 14½ miles.

The progress of the accommodation afforded by the State railways of the colony can be fairly gauged by comparing the number of persons to each mile of line open for traffic at different periods, and the average number of train miles run per inhabitant. Thus in 1860 there were 4,979 persons to each mile of line, but by the end of the year 1880 the work of construction had proceeded at a rate so much faster than the increase in the population that the average number of persons per mile had fallen to 882, so that the facilities afforded by the railways were more than five times as great as in the year first named ; while in 1897 the average population per mile of line was reduced to 497. The increase in the average number of train miles run per inhabitant has been very rapid, rising from 0·5 miles in 1860 to 1·8 in 1870, 4·4 in 1880, and 7·4 miles in 1890. The maximum was reached in 1891, when the number of train miles run per head of the population averaged 7·5. For the four years ended 30th June, 1897, the rate was, approximately, 6 miles to each member of the community. The following statement illustrates the extension of railway facilities since 1860:—

Year.	Population to each mile of line.	Number of train miles run.	Number of train miles run per head of population.
1860	4,979	174,249	0·5
1865	2,822	483,446	1·2
1870	1,467	901,139	1·8
1875	1,366	1,472,204	2·5
1880	882	3,239,462	4·4
1885	544	6,638,399	7·2
1890	502	8,008,826	7·4
1891	521	8,410,421	7·5
1892	538	8,356,096	7·2
1893	515	7,505,310	6·3
1894	495	7,169,785	5·9
1895	501	7,594,281	6·1
1896	510	7,719,618	6·0
1897	497	8,130,405	6·2

COMPARISON OF RAILWAY FACILITIES.

New South Wales stands in a good position among the Australasian colonies in regard to railway development, as will be seen from the following table, which shows the length of Government and of private lines open for traffic in the various colonies in the early part of 1897:—

Colony.	Lines Open.		
	Government.	Private.	Total.
	miles.	miles.	miles.
New South Wales...	2,639	85	2,724
Victoria	3,129	......	3,129
Queensland	2,445	......	2,445
South Australia......	1,869	20	1,889
Western Australia...	970	391	1,361
Tasmania...............	420	55	475
New Zealand	2,018	167	2,185
Total	13,490	718	14,208

Points of comparison between the railways of a large and thinly-inhabited country such as New South Wales and those of the countries of the Old World are difficult to obtain. The following table, however shows the average population and the average number of square miles of territory per mile of line open, in the principal countries of the world. It will be seen that New South Wales comes fairly well out of the comparison :—

Countries.	Length of Railway.	Population per Mile of Line.	Area per Mile of Line.
Australasia :—	miles.	No.	sq. miles.
New South Wales	2,724	481	114
Victoria	3,129	374	28
Queensland	2,445	196	273
South Australia	1,889	189	478
Western Australia	1,361	116	717
Tasmania	475	352	55
New Zealand	2,185	329	48
America :—			
Argentine Republic	8,832	447	201
Brazil	7,027	2,324	457
Canada	15,977	303	208
Chili	1,782	1,663	165
United States of America	181,020	346	16
Europe :—			
Austria-Hungary	18,983	2,179	13
Belgium	2,857	2,244	4
France	25,121	1,533	8
Germany	27,392	1,908	8
Great Britain and Ireland	21,174	1,799	6
Italy	9,579	3,266	11
Netherlands	1,672	2,906	8
Norway	1,071	1,868	116
Russia (exclusive of Finland)	21,948	4,291	86
Spain	7,301	2,495	27
Sweden	6,058	812	29
Switzerland	2,233	1,314	7
Asia :—			
India (inclusive of Native States)	19,678	14,596	79
Africa :—			
Cape Colony	2,441	701	90
Natal	402	1,353	51

RAILWAY SYSTEMS.

The railway system of New South Wales is divided into three distinct branches, each representing a system of its own. The southern system, including the principal line of the colony, branches at Junee, and places the important district of Riverina, as far as the town of Hay in one direction, and Berrigan in another, in direct communication with Sydney, from which they are distant 454 and 434 miles respectively. This branch is termed the south-western line. From several other points of the line branches connecting other important districts with the metropolis have been opened for traffic. From Culcairn, 30 miles from Albury, a line connects with Corowa, on the Murray. From Cootamundra a line branches off in a southerly direction to Gundagai, and another in a north-westerly direction to Temora, whilst from Murrumburrah a line has been constructed which connects Blayney on the western line with the southern and western systems of the railways of the colony. This branch line has been found of much benefit in allowing the direct shipment of stock from the pasture grounds to the Victorian markets. Nearer Sydney the important town of Goulburn will be the centre of a system of branch lines, one of which—that from Goulburn to Cooma—is already laid down, and brings the rich pastoral district of Monaro in direct communication with Sydney.

The southern main line is the most important of the railway lines in the colony, as it passes through the richest and most thickly-populated districts, and places Sydney, Melbourne, and Adelaide in direct communication. The traffic, both of passengers and of goods, on the southern system generally, is very extensive, and arrangements for the regular carriage of mails between the two great cities enable letters to be delivered in less than twenty hours. Sleeping cars are attached to these trains on the New South Wales side, and the comfort of travellers is assured by the introduction of the most modern improvements in the construction and fitting up of the railway carriages. Since the completion of the railway from Melbourne to Adelaide, a distance of 509 miles, European mails are landed at the latter port and forwarded overland to all parts of Victoria, New South Wales, and Queensland.

Another line which forms part of the southern system has been constructed, connecting the metropolis with the coastal district of Illawarra, which is rich alike in coal and in the produce of agriculture. The present terminus is at Bomaderry, on the northern bank of the Shoalhaven River, opposite to Nowra, but it is proposed to take it eventually to Jervis Bay, closely following the coast line. A proposal has also been made for the construction of a line from the port of Eden at Twofold Bay, in the south of the colony, to the township of Bega, in the centre of a rich agricultural district; but this is at present in abeyance. At Sydenham, on the Illawarra railway, a line, 5 miles in length, branches off to Belmore, and this will no doubt eventually be continued to Liverpool.

The western system of railways extends from Sydney in the direction of the Blue Mountains, of which it reaches the upper levels a little above Emu Plains by a direct line of steep gradient, which enables the locomotive to drag its heavy freight up the abrupt eastern slope of the mountains. Up to the 18th December, 1892, a zig-zag line was used to enable trains to climb this slope of the mountains; but on the date mentioned a deviation by which the zig-zag was avoided was opened for traffic. To admit of a direct line of ascent, a tunnel, 32½ chains in length, had to be constructed through part of a mountain. The line runs along the top of the range until it descends into a valley below Mount Clarence by the Lithgow zig-zag, the construction of which is a triumph of engineering skill. In its course over the mountains the line passes through magnificent scenery of a character peculiar to this part of the world, and remarkable for its rugged grandeur. Leaving the mountains, the western railway, after throwing out a branch from Wallerawang to Mudgee, enters the Bathurst Plains, and connects with the metropolis the rich agricultural lands of the Bathurst, Orange, and Wellington districts. Beyond Dubbo it enters the pastoral country, and reaches the Darling at Bourke, 503 miles from Sydney. At Orange a branch line, 97 miles in length, connects that town with Forbes. From Parkes, one of the stations on this line, an extension to Condobolin, 62½ miles distant, is in course of construction—a section of this line, Parkes to Bogan Gate, 23½ miles in length, having been opened for traffic on the 15th December, 1896. Farther west, at Nyngan, 377 miles from Sydney, a branch line has been opened, connecting the important mining district of Cobar with Sydney, and affording at the same time rapid and sure means of communication with the pastoral country of which Cobar is also the centre. It has been proposed to continue this line as far as Wilcannia, on the Darling, whence it might be extended to Broken Hill, to meet the South Australian system, but for the present this project remains in abeyance. The western railway system also includes a short line from Blacktown to the Hawkesbury, *via* the towns of Windsor and Richmond.

The northern system originally commenced at Newcastle, but a connecting line between Homebush and Waratah has been constructed, making Sydney the head of the whole of the railway systems of the colony. The Hawkesbury River has been crossed by an iron bridge, 2,896 feet long, in seven spans, the iron superstructure of which cost £327,000. This connecting line allows direct communication between Adelaide, Melbourne, Sydney, and Brisbane, a distance from end to end of 1,808 miles, and has been found of great value to those requiring quick transit, and for the carriage of postal matter. It facilitates, moreover, the active business life of the colonies, and will be of national importance should at any time strategic movements require to be made in connection with military operations.

The northern line runs *via* Newcastle and the great coal centres through the rich agricultural district of the Hunter Valley, to the important part of the colony known as New England, passing through some of the largest inland towns in New South Wales, such as Maitland. The country traversed by this line north of Newcastle is extremely fertile. As the line goes farther north it passes through a rich pastoral and agricultural territory, and some important townships are reached, viz., Tamworth, Armidale, Glen Innes, and Tenterfield, and 11 miles beyond the last-mentioned township the line crosses the border at Wallangarra or Jennings, where a junction is effected with the Queensland railways.

The northern system also comprises a branch from Werris Creek to Narrabri, which is now extended as far as Moree, in the north-west, and the Darling in the west, thus placing the Namoi and Gwydir pastoral districts in direct communication with the ports of Newcastle and Sydney. In the New England District a line has been long projected, which would connect the town of Glen Innes with that of Inverell on one side, and with the city of Grafton, on the Clarence, on the other; an alternative line has been surveyed to connect the Clarence and New England districts, the proposed junction on the Northern line being at Llangothlin, but both this route and the one proposed from Glen Innes to Grafton present physical difficulties of such a magnitude that it is doubtful if either line will be carried out, at all events for some time to come. A portion of the North Coast railway, 64 miles in length, from the Tweed River to Lismore, on the Richmond, was opened for traffic in 1894. Bills were passed in 1896 for the construction of three new lines, viz., from Nevertire to Warren, which is now almost completed; from Tamworth to Manilla, and from Berrigan to Finley.

A short line was constructed in 1890, branching off the main northern line at Hornsby, 21 miles from Sydney, to Pearce's Corner, on the heights of St. Leonards, and this line was afterwards extended from the latter place to the north shore of Port Jackson, at Milson's Point. Proposals have been made from time to time to bridge the harbour, or to tunnel beneath it, and thus allow direct communication by rail between the suburbs on the north and the city on the south shore. In 1896 various proposals were submitted to a Parliamentary Committee, who reported in favour of a tunnel, and this action was endorsed by the Assembly when considering the private bills introduced for the purpose of providing the means of communication between the city and North Sydney.

GRADIENTS.

The railways of the colony have been constructed with a large proportion of steep gradients, but much has been done during the last few years to reduce some of the heaviest of these. The Railway Commissioners, in one of their Annual Reports, drew a comparison between the New South Wales lines and the Alpine railways, and it was found that the gradients were steeper, and the curves sharper, on the lines of this colony than on the Alpine lines. By reducing some of the gradients, and introducing locomotives of greater power than were formerly employed, considerable economy in working, as well as the expediting of traffic, has been effected. The traffic is now carried on more satisfactorily, and the expense of extensive duplication works, which would have been necessary under the system which previously existed, has been postponed for years. However, a great deal remains to be accomplished in the matter of reducing gradients, as will be seen on reference to the following table, which shows the number of miles on different gradients in November, 1897. The distances given include the increased length of lines for deviations, and are therefore in excess of the time-table distances.

Gradients.	Southern System.	Western System.	Northern System.	Total.
1 in	mls. chs.	mls. chs.	mls. chs.	mls. chs.
18 to 30	4 19	1 63	....	6 2
31 ,, 40	58 26½	75 68	36 57	170 71½
41 ,, 50	60 29	52 17	72 13	184 59
51 ,, 60	39 59	55 19	45 23	140 21
61 ,, 70	47 53½	43 63¼	26 61	118 17¾
71 ,, 80	60 16	50 23½	39 44	150 3½
81 ,, 90	30 41	32 69	18 10	81 40
91 ,, 100	46 55	64 38½	45 36	156 49½
101 ,, 150	104 51	101 39	79 79½	286 9½
151 ,, 200	60 25½	50 77½	46 67½	158 10½
201 ,, 250	31 63	16 45	19 65	68 13
251 ,, 300	41 15	29 4	29 56	99 75
301 ,, level	537 28	258 60¾	266 11	1,062 19¾
Total........	*1,123 1½	833 27½	726 43	2,682 72

*2 miles 29½ chains difference in mileage over deviations, &c.

Cost of Construction.

The following table shows the cost of construction of the various branches of the railway system of the colony at the middle of the year 1897. The average cost for the whole of the lines is calculated to be £12,132 per mile, including all charges except those for rolling-stock, machinery, and workshops—a figure which, considering the character of some parts of the country through which the lines have been carried, and the cost of labour, which is considerably greater in Australia than in most other countries, is by no means a high one. In considering in detail the figures given it is interesting to note the comparative low cost per mile of some of the extensions through pastoral country. The line from Nyngan to Cobar averaged £3,712 per mile; that from Molong to Forbes, £5,307; from Junee to Hay, £5,709; from Werris Creek to Narrabri, £5,871; and from Dubbo to Bourke, £5,970. The line from Cootamundra to Temora was also cheaply constructed, the average cost per mile being £4,312. The lines of the "Pioneer" ıss opened during the year, however, in a special manner show that, certain districts of the colony, railways capable of effectively carrying e traffic can be constructed at an average cost far below what has therto been attempted. The average cost of the line from Narrabri Moree was £2,025 per mile; that from Jerilderie to Berrigan, £1,778 r mile; and that from Parkes to Bogan Gate, £2,053 per mile. In nnection with the Culcairn-Corowa line, which averaged £4,444 per le, the betterment system was brought into operation. The Campbell- wn to Camden, the Kogarah to Sans Souci, and the Yass lines were nstructed cheaply for tram-lines:—

Lines opened for Traffic.	Length.	Total Cost.	Cost per Mile.
	m. ch.	£	£
Darling Harbour Branch	1 42½	363,106	237,130
Sydney to Granville	13 36¼	1,887,476	140,300
Granville to Goulburn	121 5¾	2,568,810	21,217
Goulburn to Wagga	174 79¼	1,509,080	8,624
Wagga to Wodonga	79 13¾	914,468	11,550
Culcairn to Corowa	47 39	211,050	4,444
Junee to Hay	167 35¾	955,937	5,709
Narrandera to Jerilderie	64 54¾	409,435	6,330
Granville to Penrith	21 26¼	609,355	28,570
Penrith to Bathurst	109 27	2,440,494	22,321
Bathurst to Dubbo	134 5	1,196,554	8,925
Dubbo to Bourke	225 45	1,346,501	5,970
Nyngan to Cobar	81 27¼	301,964	3,712
Wallerawang to Mudgee	85 06	981,407	11,536
Blacktown to Richmond	16 12	175,823	10,887
Goulburn to Cooma	130 40	1,403,168	10,752
Cootamundra to Gundagai	33 45½	259,773	7,739
Cootamundra to Temora	38 69	167,564	4,312
Orange to Molong	22 60	269,821	11,860
Molong to Forbes	72 69	386,690	5,307
Murrumburrah to Blayney	110 63	1,079,496	9,744
Sydney to Kiama	71 53	1,953,015	27,253
Kiama to Nowra	22 43½	363,284	16,115
Homebush to Waratah	93 03	2,630,577	28,274
Newcastle to Wallangarra	392 54	4,985,197	12,695
Werris Creek to Narrabri	96 48	567,156	5,871
Bullock Island Branch	1 45½	86,672	55,249
Morpeth Branch	3 37½	60,849	17,542
Hornsby to Milson's Point	13 27½	583,765	43,748
Lismore to Murwillumbah	63 57	882,338	13,849
Sydenham to Belmore	5 3½	179,333	35,555
Campbelltown to Camden	7 65	39,137	5,010
Kogarah to Sans Souci	4 71	12,111	2,478
Yass Tramway	2 73	28,339	9,730
Narrabri to Moree	63 10	127,818	2,025
Jerilderie to Berrigan	21 65	38,781	1,778
Parkes to Bogan Gate	23 38	48,194	2,053
Total or average	2,639 56½	32,024,538	12,132

The amount expended on rolling-stock to the 30th June, 1897, was £4,412,862; for machinery, £290,074; on workshops, £631,864; and for furniture, £9,867; or £5,344,667 in all. This makes the total cost of all lines open for traffic, £37,369,205, or an average on all charges of £14,157 per mile. The growth of the capital expenditure on open lines may be traced below:—

Year.	Capital expended on lines open.	Year.	Capital expended on lines open.
	£		£
1855	515,347	1889	29,839,167
1860	1,422,672	1890	30,555,123
1865	2,746,373	1891	31,768,617
1870	5,566,092	1892	33,312,608
1875	7,245,379	1893	34,657,571
1880	11,778,819	1894	35,855,271
1885	21,831,276	1895	36,611,366
1886	24,071,454	1896	36,852,194
1887	26,532,122	1897	37,369,205
1888	27,722,748		

It will be seen that the cost of the lines open for traffic on the 30th June, 1897, as already stated, was £37,369,205. Of this amount, £903,565 has been provided out of the Consolidated Revenue of the colony, and debentures to the amount of £1,696,675 have been finally paid off, leaving a balance of £34,768,965 which has been raised by the issue of debentures and other stock. As will be seen hereafter, the net revenue for the year ending June, 1897, after paying working expenses, was £1,413,524, which gave a return of 3·78 per cent. upon the total capital expenditure on lines open for traffic, and 4·06 per cent. upon the capital on which the country has to pay interest. The so-called reduction of the railway debt, however, is purely imaginary, seeing that the bulk of the debentures retired were renewed out of fresh loans, and the sum paid from revenue to redeem loans was not furnished by railway profits. The proper comparison between railway earnings and interest charged is obtained from the net earnings of railways on cost of construction, and the actual interest paid by the State on outstanding loans. The net earnings of the railways represent 3·78 per cent. on the cost of construction; but as the average price obtained for the loans of the colony was 96·28 per £100 of stock, the actual earnings of the railways cannot be taken at more than 3·64 per cent., while the interest charged on outstanding loans is 3·71 per cent. Another point to be considered is that the sum of £1,000,000 was authorised by Parliament to be expended in connection with the improvements to the grades on main lines, and the quadrupling of the suburban system. The cost of these urgent works was to be defrayed from the proceeds of loans, on the understanding that the loans should be redeemed from railway revenue at the rate of £75,000 a year, and already £450,000 has been nominally redeemed. This redemption has been effected at the expense of the general revenue, seeing that in the years when the redemption was made there was not sufficient railway revenue to meet working expenses and interest, and there has, therefore, really been no reduction of capital effected by these payments.

The cost of railway construction in the principal countries of the world for which figures are available, is given hereunder. The figures include the whole expense of equipping the lines for traffic, and are brought down to the latest available dates:—

Countries.	Cost per Mile open for Traffic.	Countries.	Cost per Mile open for Traffic.
	£		£
United Kingdom	47,280	Australasia :—	
France	27,540	New South Wales...	14,157
Germany	20,409	Victoria	12,249
Switzerland	20,231	New Zealand	7,719
Norway	7,397	Queensland	7,180
Sweden	5,738	South Australia......	7,359
Canada	11,584	Tasmania...............	8,395
United States	11,536	Western Australia	4,494
Cape Colony	9,407		

NEW LINES AND REVENUE RETURNS.

The contrast between the present condition of the New South Wales railways and their humble beginning in 1855 is a remarkable one. In 1856, the first year which can fairly be taken for purposes of comparison, the number of passengers on the railways was only 350,724, whilst in the year ended June 30, 1897, the number was 22,672,924, or nearly 65 times greater. But the tonnage of goods carried represents a very much larger increase, having grown from 2,469 to 4,567,041 tons, or nearly 1,850 times since the first full year of railway operations. For the first ten years of the period under review the larger part of the railway earnings was obtained from the passenger traffic, no doubt due to the fact that the first railways were almost entirely suburban. It was not until the line crossed the mountains and opened up the far interior that the proportions changed, and the goods traffic became the principal source of revenue of the railways. This change began to take place in 1867.

The comparison between the earnings of the period prior to 1871—when the net result every year represented only a small portion of the interest due on the capital expended in the construction of the lines—and of the subsequent period, affords matter for satisfaction. The figures for 1886 and 1887 show a falling off from those of the previous fourteen years; but it should be borne in mind in comparing these two years with the excellent results exhibited during the period from 1874 to 1884, when an average of considerably over 4 per cent. was realised, that the fall in receipts was due in a great measure to the previous years of drought, and also to the uncertainty attaching to the land laws, which had recently been materially altered.

During the years 1884 and 1885 the last section of the main western line, extending over a distance of 112 miles as far as Bourke, was opened, and the line branching off from Wallerawang was completed as far as Mudgee, the length being 85 miles. On the south-western railway the branch line, Narrandera to Jerilderie, covering a distance of 65 miles, was opened for traffic. All these extensions run through very sparsely settled districts, and this was the case with regard to nearly the whole of the other 172 miles opened during the two years mentioned. This total of 412 miles opened for traffic in unproductive country caused a serious falling off in the proportion of receipts to expenditure during the period ended June, 1888, the net revenue yielding less than 3 per cent. on the total expenditure. Since that time, despite the addition of further unprofitable lines to the system, the returns have improved step by step, rising in the years 1891 and 1892 to 3·59 and 3·58 per cent., and during the four years of depression ended 1896 never falling below 3·44 per cent., while in 1897 a return of 3·78 per cent. was obtained. As will be seen further on, the burden of unprofitable lines continues to be heavy, the loss on 1,257 miles during the year ended 31st December, 1896, being no less than £357,093; but the expenses of working are kept as low as possible. The fact that the lines as a whole in the past have not returned a profit should occasion no surprise, as the statistics of railways in all parts of the world show that few lines, except perhaps suburban ones, return anything like a profit during the first few years after their opening. In England a period of seven years has been allowed by good authorities for a line to develop traffic; and if such is the fact in more densely-populated countries, whose resources are more developed than is the case in New South Wales, there is every reason to be satisfied with the fact that the lines of this colony have yielded so good a return as they have. The hope previously expressed, that under the present administration of the railways the deficiency would soon be met, has been borne out by the fact that the returns for the year ended June 30, 1897, show that the interest on cost of construction was covered, leaving a margin of £27,127, if the total cost of the lines open for traffic be taken into consideration.

A glance at the table showing the net earnings, and the interest on the capital expended upon railways, which will be found on page 557, will disclose the fact that during the period from 1870 to 1875, when the length of new lines yearly constructed was very small, being only 116 miles during the whole period of six years, or about 19⅓ miles per year, the railway profits steadily increased from 1·81 to 4·39 per cent. During 1877 and 1878, 180 miles of railway were constructed, and the profits immediately declined to 3·74 and 3·34 per cent. respectively. From 1880 to 1884 the railways were extended chiefly to centres already populous and prosperous, viz., Riverina and New England, and the central districts of Goulburn, Wellington, and Dubbo; and as these were years of remarkable prosperity, the railway profits suffered less than usual from the considerable extension, which included the construction of the expensive connecting-link joining the New South Wales railways with those of Victoria, at the river Murray. From 1885 the extensions on the main lines have, for the most part, been through pastoral country, such as the continuation of the western line to Bourke, the northern line to Wallangarra, and the further extensions of the lines in the Goulburn district to the rich pastoral lands of Monaro; while several branch lines were constructed tapping important agricultural and dairy-farming districts, notably the lines Cootamundra to Gundagai, Cootamundra to Temora, Murrumburrah to Blayney, Nyngan to Cobar, Culcairn to Corowa, and Sydney to Nowra. None of the lines mentioned yet pays its way, the loss on some being very heavy. There was also constructed an isolated line, 63¾ miles in length, from Lismore to the Tweed, which likewise shows a heavy loss on working. In some cases the value of the branch lines will not be felt until the entire system of which they form part is completed, or until they become trunk lines. For instance, in the case of the Goulburn to Cooma line, a proposal is under consideration for continuing this line to the Victorian border, with a branch line to Eden, Twofold Bay. It is expected that the Gippsland line will be extended from Bairnsdale to the border, and that by the junction of these two lines an alternative route to Melbourne will be obtained. In that case, no doubt, the eastern part of Gippsland would find its natural port at Eden. Expensive new lines result in an increase of the percentage of working expenses to the gross earnings, as these lines have to be kept in full working order and repair whilst actually returning in gross earnings little more than the cost of maintenance. The small returns on expensive incompleted branches further tend to diminish greatly the profits of a railway system taken as a whole; but such is the history of railway construction in all parts of the world, and New South Wales is no exception to the general rule.

The following table shows the loss on non-paying lines during the last four calendar years. It should be noted that the capital cost includes the expenditure on equipment as well as construction:—

Line.	Capital Cost.	Loss in Working, after providing for Working Expenses and Interest.			
		1893.	1894.	1895.	1896.
	£	£	£	£	£
Goulburn to Cooma	1,462,111	45,107	43,096	43,453	47,525
Murrumburrah to Blayney	1,142,347	36,934	37,586	40,855	42,172
Cootamundra to Gundagai	253,805	6,763	6,474	5,628	6,168
Cootamundra to Temora	191,807	†983	1,943	3,137	2,159
Junee to Hay	1,043,270	19,122	17,563	Nil.	8,494
Narrandera to Jerilderie	424,232	14,806	14,305	10,701	12,011
Culcairn to Corowa	232,368	7,818	8,023	7,925	7,118
Sydney to Kiama	2,182,602	38,356	41,091	42,204	33,909
Kiama to Nowra.....................	380,194	†13,106	12,968	12,634	11,974
Sydenham to Belmore	198,082	......*	......*	†7,518	8,119
Blacktown to Richmond	196,168	6,280	5,116	6,091	5,256
Wallerawang to Mudgee	1,042,817	30,097	28,514	29,704	27,242
Orange to Molong	287,421	6,890	3,750	4,732	2,162
Molong to Forbes	427,118	†2,386	2,228	1,149	
Nyngan to Cobar	323,932	9,026	3,588	2,184	2,885
Hornsby to St. Leonards	594,289	9,950	20,183	20,184	14,721
St. Leonards to Milson's Point...		†12,848			
Werris Creek to Tamworth	296,905	......‡	4,764	4,493	Nil.
Tamworth to Armidale	1,214,546	......‡	31,786	34,907	34,207
Armidale to Jennings	1,539,946	63,540	63,847	64,683	62,819
Lismore to Murwillumbah	916,034	......*	†11,695	32,018	28,152
Total	14,349,994	324,012	358,520	374,200	357,093

* Not opened. † Opened for part of the year only. ‡ Not shown.

The Railway Commissioners in their annual report for 1891 suggested a plan of paying for new lines from the sale of lands. They recommended that the Crown lands for a distance of 10 miles on each side of a proposed line of railway should be set aside for sale, and half the proceeds of the land sold credited to the railway capital; and where the land required for railway construction had passed into the hands of private individuals, the land-owners should combine and convey the necessary land free of cost to the Government, it being considered that the owners would be fully remunerated for the gift of the land by the enhanced value of their property caused by the establishment of direct railway communication with the other parts of the colony. By the adoption of such a system as this it is believed that railways in light undulating country could be constructed at a moderate cost, and yield a fair return on capital from the commencement, especially what are known as "Pioneer Railways," which could be constructed at an average of about £1,750 per mile, exclusive of bridges.

The betterment system as applied to railways was first introduced in the construction of the Culcairn to Corowa Railway. No special Act was passed for the general establishment of this principle; but by a proviso in a clause of the Public Works Act the Government was empowered to apply the principle to all railways constructed subsequent to the date of the passing of the Act. In estimating the enhanced value of the land adjoining the Culcairn to Corowa railway line, the stations were assumed to be 10 miles apart, the betterment area having a 5-mile radius from each station, and the land in the vicinity of each station being considered to have an enhanced value of 25 per cent., graduating to 5 per cent. at the limit of the radius. In the case of the extension of the railway along the southern coast it is found that the enhanced value does not reach so high a percentage, owing to the facilities which exist for the transport of produce by water.

GROSS EARNINGS AND WORKING EXPENSES.

The gross amount of revenue derived from all sources connected with the Government railways in New South Wales during the year ended 30th June, 1897, was £3,014,742, being an increase of £194,325 as compared with the preceding year. The working expenses were £1,601,218, or £49,330 in excess of 1896; and the net earnings were £1,413,524—an increase of £144,995 on the results obtained during the previous twelve months. The net earnings were, therefore, 46·8 per cent. of the total earnings, as against 33·3 per cent. when the Commissioners took office. The following table gives the gross earnings and the total working expenses, with the proportion per cent. of the expenditure to the receipts.

It should be borne in mind that since the year 1887 the railway accounts have been made up to the 30th June in each year :—

Year.	Gross Earnings.	Working Expenses.	Proportion of working expenses to gross earnings.	Year.	Gross Earnings.	Working Expenses.	Proportion of working expenses to gross earnings.
	£	£	p. cent.		£	£	p. cent.
1855	9,249	5,959	64·4	1889	2,538,477	1,634,602	64·4
1860	62,269	50,427	81·0	1890	2,633,086	1,665,835	63·3
1865	166,032	108,926	65·6	1891	2,974,421	1,831,371	61·6
1870	307,142	206,003	67·1	1892	3,107,296	1,914,252	61·6
1875	614,648	296,174	48·2	1893	2,927,056	1,738,516	59·4
1880	1,161,017	647,719	55·8	1894	2,813,541	1,591,842	56·6
1885	2,174,368	1,458,153	67·1	1895	2,878,204	1,567,589	54·5
1886	2,160,070	1,492,992	69·1	1896	2,820,417	1,551,888	55·0
1887	2,208,295	1,457,760	66·0	1897	3,014,742	1,601,218	53·1
1888	2,295,124	1,530,551	66·7				

In the foregoing table will be found ample evidence of the economical working of the State railways under their present management, and this notwithstanding that the expenses per train mile run have increased. The explanation of this increase in the expense per train mile will be found in the fact that, although the business has increased, the management have contrived to reduce the mileage run, and have at the same time effected a thorough overhaul of the property in their hands. The distribution of expenses is shown below :—

Head of Expenditure.	1880.	1885.	1890.	1895.	1896.	1897.
	d.	d.	d.	d.	d.	d.
Maintenance of way.........	11·40	15·71	15·39	12·63	10·91	10·57
Locomotive power	16·33	15·62	16·73	15·63	16·58	16·95
Repairs—carriages, waggons, etc.	2·47	2·65	4·59	4·13	4·67	4·51
Traffic charges	15·83	14·92	15·07	13·96	13·60	13·13
Compensation	0·50	0·30	0·97	1·05	0·47	0·09
General expenses	1·46	3·52	2·16	2·14	2·01	2·01
Total	47·99	52·72	54·91	49·54	48·24	47·26

The following table gives the percentage of earnings from the two sources of railway revenue. It will be observed that in the year 1860 the earnings from passenger traffic largely exceeded those from goods, but after that year the proportion derived from that source declined, reaching the minimum in 1875. This falling off was almost entirely due to the considerable extension of the main lines through pastoral country, thinly populated, but well stocked with sheep and cattle, and consequently furnishing the railway with large quantities of produce for carriage to the seaboard. From 1880 to 1889, however, the percentage of receipts from passengers steadily advanced, the proportion in the year last named being as high as 40·4 per cent. of the total revenue. For the year ended 30th June, 1897, the passenger traffic contributed but 36·5 per cent. of the total railway earnings :—

Year.	Percentage of—		Year.	Percentage of—	
	Passenger Earnings to Total.	Goods Earnings to Total.		Passenger Earnings to Total.	Goods Earnings to Total.
1860	73·0	27·0	1889	40·4	59·6
1865	56·0	44·0	1890	40·2	59·8
1870	38·4	61·6	1891	39·6	60·4
1875	33·5	66·5	1892	38·3	61·7
1880	33·6	66·4	1893	38·1	61·9
1885	38·2	61·8	1894	37·2	62·8
1886	39·3	60·7	1895	35·1	64·9
1887	38·5	61·5	1896	37·0	63·0
1888	40·1	59·9	1897	36·5	63·5

NET EARNINGS AND INTEREST ON CAPITAL.

The net revenue for the year which expired on the 30th June, 1897, was £1,413,524, while the total amount of capital expended on lines in operation to the same period was £37,369,205. The net return on the capital expended equalled 3·78 per cent.—a more satisfactory return than that shown in any of the preceding years since the Commissioners took office, and 0·04 per cent. above the average interest payable on the public debt, and only 0·09 per cent. below, if the actual price received for stock be taken. The following table shows the net earnings and the interest returned on the total capital expended on railways, including the cost of both construction and equipment, for the year 1855 and subsequent periods :—

Year.	Net Earnings.	Interest on Capital.	Year.	Net Earnings.	Interest on Capital.
	£	per cent.		£	per cent.
1855	3,290	0·63	1889	903,875	3·14
1860	11,842	0·83	1890	967,251	3·17
1865	57,106	2·07	1891	1,143,050	3·59
1870	101,139	1·81	1892	1,193,044	3·58
1875	318,474	4·39	1893	1,188,540	3·48
1880	513,298	4·35	1894	1,221,699	3·46
1885	716,215	3·37	1895	1,310,615	3·60
1886	667,078	2·90	1896	1,268,529	3·44
1887	750,535	2·96	1897	1,413,524	3·78
1888	764,573	2·85			

Two important facts which demonstrate the financial position of the railways and the character of the management are the earnings per train mile and per average mile open. Although the returns now being realised cannot be compared with those of 1875, when the net earnings per train mile fell little short of 52d., and per mile open £775, the present earnings are in every way encouraging. Under the control of the Commissioners the net return per train mile has increased from 27·4d. to 41·7d., or 52·2 per cent.; while per mile of line open for traffic the advance has been from £374 to £548·9, or 46·8 per cent. The following table gives details of the net earnings since 1860:—

Year.	Net Earnings per—		Year.	Net Earnings per—	
	Train Mile Run.	Average Mile Open.		Train Mile Run.	Average Mile Open.
	d.	£		d.	£
1860	15·9	189·5	1889	28·4	424·7
1865	28·3	399·3	1890	29·0	444·3
1870	26·9	307·4	1891	32·6	523·8
1875	51·9	774·8	1892	34·3	546·6
1880	38·0	653·1	1893	38·0	513·2
1885	25·9	430·6	1894	40·9	503·3
1886	24·7	372·6	1895	41·4	520·9
1887	27·8	387·7	1896	39·5	501·2
1888	27·4	374·0	1897	41·7	548·9

PASSENGER TRAFFIC.

The number of journeys made by each person in the colony now averages 17·2 per annum, as against 7·5 in 1880 and 1·6 in 1870. The increase has been exceedingly rapid as well as fairly uniform, as will be seen from the following table:—

Year.	Number of Journeys.	Year.	Number of Journeys.
1855	0·4	1889	15·3
1860	1·6	1890	15·8
1865	1·9	1891	17·0
1870	1·6	1892	17·1
1875	2·3	1893	16·6
1880	7·5	1894	15·7
1885	14·6	1895	15·8
1886	15·4	1896	16·3
1887	14·4	1897	17·2
1888	14·9		

The figures just given include journeys of season ticket-holders; excluding this traffic, the number of journeys per head would be about 10·5, a number larger than the average of any of the adjacent colonies, Victoria excepted. The average number of journeys made by the inhabitants of the United Kingdom is 24·8—a figure which largely exceeds that of any other population. With this exception, railway travelling is more common in Victoria, Western Australia, and New South Wales than in any other country. The averages of some of the more important places are:—Belgium, 16·0; France, 8·8; Germany, 13·0; United States, 9·3; Austria-Hungary, 3·1; Russia, 0·5; Norway, 3·0; Sweden, 3·4; Switzerland, 15·4; Netherlands, 5·6; Spain, 1·8; Italy, 1·6; South Australia, 16·1; Queensland, 5·6; Western Australia, 26·1; New Zealand, 6·2; and Tasmania, 3·3. For Victoria the average is set down at 35·9; but this figure is obtained by reckoning a passenger once for each of several sections passed over in the course of the same journey, and is useless, therefore, for purposes of comparison. The total number of journeys made by passengers, including season ticket-holders, the revenue received from the passenger traffic, and the average receipts per journey, are shown in the next table, which should be read in conjunction with that just given:—

Year.	Passenger journeys.	Receipts from Passenger Traffic.	Average Receipts per journey.
	No.	£	d.
1855	98,846	9,093	22·08
1860	551,044	45,428	19·79
1865	751,587	92,984	29·69
1870	776,707	117,854	36·42
1875	1,288,225	205,941	38·37
1880	5,440,138	390,149	17·21
1885	13,506,346	830,904	14·76
1886	14,881,604	849,253	13·70
1887	14,451,303	850,499	14·12
1888	15,174,115	918,975	14·53
1889	16,086,223	1,025,601	15·30
1890	17,071,945	1,059,791	14·90
1891	19,037,760	1,177,037	14·84
1892	19,918,916	1,189,231	14·33
1893	19,932,703	1,115,042	13·43
1894	19,265,732	1,047,029	13·04
1895	19,725,418	1,022,901	12·45
1896	21,005,048	1,043,922	11·93
1897	22,672,924	1,098,696	11·19

It will be seen that 1897 shows a far larger number of passenger journeys than preceding years, but a less satisfactory result in the way of receipts. This does not so much arise from curtailment of long-distance travelling as from the change of a large body of travellers from first to second class—a result due to diminished means. A return to prosperous times will show an increase in first-class travellers, but it frequently happens that the removal of the original impelling cause is not followed by a return to previous habits, so that the railways may continue to suffer in revenue even when the original cause of the suffering has disappeared.

The traffic on the suburban lines, which comprise only distances within 20 miles of Sydney and Newcastle, Liverpool and Morpeth included, has enormously increased of late years. In the following table a comparison is instituted between the traffic for the years ended 30th June, 1891, 1896, and 1897 :—

Suburban Traffic.	1891.	1896.	1897.
Number of ordinary passengers	9,384,425	10,635,753	11,323,539
,, workmen's journeys	2,422,644	3,306,996	4,000,248
,, season ticket holders' journeys	4,127,192	4,608,828	4,827,560
Total passenger journeys	15,934,261	18,551,577	20,151,347
Number of miles travelled	89,270,546	104,310,788	115,059,631
Average mileage per passenger	5·61	5·62	5·71
Amount received from passengers	£252,271	£252,025	£264,392
Average receipts per mile, per passenger	0·68d.	0·58d.	0·55d.

The average receipts from passenger traffic per head of population advanced very rapidly until 1891, when the amount stood at 20s. 11·8d., against 10s. 8·5d. in 1880, and 4s. 9·7d. in 1870. This was not due so much to the increased distance travelled by passengers as to the fact that the railway mileage increased at a greater rate than the population, enabling the public to indulge in a larger measure of railway travelling, in accordance with the well-established rule that the more facilities for travelling are extended, the greater will be the traffic. Since 1891 the average has lessened and now stands at 16s. 11·2d. In this connection it may be interesting to note that the fares charged on the suburban lines, over which the majority of passengers travel, are very much less for both classes of travellers than the English rates, although the cost of working is very much higher. The receipts from passenger traffic per head of the population will be found in the following figures :—

Year.	Amount per head.	Year.	Amount per head.
	s. d.		s. d.
1860	2 7·8	1889	19 6·2
1865	4 7·8	1890	19 7·1
1870	4 9·7	1891	20 11·8
1875	7 10·2	1892	20 4·9
1880	10 8·5	1893	18 7·4
1885	17 11·1	1894	17 1·4
1886	17 6·2	1895	16 4·2
1887	16 11·1	1896	16 4·1
1888	18 0·2	1897	16 11·2

GOODS TRAFFIC.

The weight of goods carried per head of population in New South Vales compares favourably with that of many countries where railvays have long been established. The average tonnage for 1860 and ubsequent periods was:—

Year.	Tons.	Year.	Tons.
1860	0·2	1889	3·3
1865	1·2	1890	3·5
1870	1·6	1891	3·4
1875	2·2	1892	3·7
1880	2·4	1893	3·2
1885	3·5	1894	2·9
1886	3·3	1895	3·3
1887	3·3	1896	3·1
1888	3·3	1897	3·5

The largest amount of tonnage per inhabitant is in the United States vhere it averages 10·8; the lowest European country is Italy, with only ·5 tons per head. The relative position of New South Wales will be een from the next table, which shows the tonnage of merchandise arried per head of population in the principal countries of the world:—

	Tons.		Tons
United States	10·8	Russia	0·7
United Kingdom	9·0	Spain	·6
Belgium	7·8	Italy	0·5
Germany	4·9	Australasia—	
Canada	4·2	New South Wales	3·5
Switzerland	3·7	Victoria	2·03
Austria-Hungary	2·7	Queensland	2·6
Sweden	2·8	South Australia	3·2
France	2·6	Western Australia	6·2
Netherlands	2·1	Tasmania	1·4
Norway	0·8	New Zealand	3·4

The following figures, which extend as far back as the first opening of the lines, show how greatly the goods traffic has expanded, especially in recent years:—

Year.	Tonnage of Goods.	Earnings.	Year.	Tonnage of Goods.	Earnings.
		£			£
1855	140	156	1889	3,485,839	1,512,876
1860	55,394	16,841	1890	3,788,950	1,573,295
1865	416,707	73,048	1891	3,802,849	1,797,384
1870	766,523	189,288	1892	4,296,713	1,918,065
1875	1,171,354	408,707	1893	3,773,843	1,812,014
1880	1,712,971	770,868	1894	3,493,919	1,766,512
1885	3,273,004	1,343,464	1895	4,075,093	1,855,303
1886	3,218,582	1,310,817	1896	3,953,575	1,776,495
1887	3,339,253	1,357,796	1897	4,567,041	1,916,046
1888	3,399,772	1,376,149			

It is unfortunately impossible to subdivide the tonnage of goods just given for 1896–7 into anything approaching a general classification, but this can be done for the year which closed with December, 1896. In the statement here given, which relates to the year in question, will be found particulars of the tonnage under eight broad classes, the average distance goods of each class were carried, and the average earnings per ton per mile. This last figure, however, does not include the terminal charges, which would probably increase the revenue per ton per mile by about ·20d., or from 1·44d. to 1·64d. The "Miscellaneous and A class" comprises timber, lime, manures, fruit, vegetables, hides, tobacco leaf, bricks, gravel, drain-pipes, and traffic of a similar nature.

Description of Traffic.	Tons carried.	Average number of miles each ton of traffic is carried.	Earnings per ton per mile.
Coal	2,573,590	17·47	0·63d.
Firewood	191,205	26·35	0·86d.
Grain, flour, etc.	264,516	141·05	0·58d.
Hay, straw, and chaff	87,577	182·09	0·40d.
Miscellaneous and A class	293,171	66·54	0·90d.
Wool	110,844	271·34	2·35d.
Live stock	168,472	268·79	1·71d.
General merchandise and other traffic not classified	484,505	118·66	2·53d.
	4,173,880	61·24	1·46d.
Terminal charges	....	....	0·20d.
Total	4,173,880	61·24	1·66d.

The statement which is given below shows the receipts for carrying goods one mile along the lines of the colony. The information reaches back to 1872, when the charge was 3·6d., while after an interval of twenty-three years it had fallen to 1·6d. The decrease, however, is to some extent more apparent than real, inasmuch as it represents a more extensive development of the mineral trade than of the carriage of general merchandise; but when due allowance has been made on this score, it will be found that the benefit to the general producer and consumer has been very substantial:—

1872	3·6d.	1883	2·0d.
1873	3·3d.	1884	1·9d.
1874	3·0d.	1885	1·9d.
1875	3·1d.	1886	1·8d.
1876	2·8d.	1887	1·8d.
1877	2·7d.	1891	1·9d.
1878	2·4d.	1892	1·8d.
1879	2·3d.	1893	1·8d.
1880	2·3d.	1894	1·8d.
1881	2·3d.	1895	1·6d.
1882	2·1d.	1896	1·6d.

The figures just given should not be too strongly relied upon in comparing one year with another; but they may safely be taken as indicating generally the lessened cost of carriage to persons forwarding goods by rail. The reduction is most noticeable in regard to agricultural produce and live stock.

During the year ended 30th June, 1895, some important reductions were made in the rates for the conveyance of goods and live stock. The rates for cattle were lowered to the scale of charges applicable to sheep, being practically a reduction of 20 per cent. In March a general revision of the goods classification was made, by which many articles were placed in lower classes. The rates for coal in the Newcastle district, and from the western mines to Sydney and district, were also slightly reduced. By a revision of the wool tariff, the anomaly of charging higher rates from stations nearer to Sydney and Newcastle than from others at longer distances on the same line, but which are affected by the interior river and other competition, was entirely removed. In April, 1896, a general reclassification of goods came into force, by which a large number of articles were reduced to lower classes. Further reductions were made at the same time in the rates for the carriage of agricultural produce over long distances. The rates for agricultural implements forwarded in 5-ton truck loads were reduced by 50 per cent. and for small consignments by 20 per cent. To assist the mining industry, the rates for explosives and mining machinery were also reduced, the latter by 50 per cent.

The revenue from goods traffic per inhabitant rose rapidly from the opening of the lines until the year 1883, when it stood at 30s. 4d., at which figure it remained in 1884. The unfavourable seasons experienced during the subsequent years greatly affected the traffic, and the revenue in 1888 had fallen to 27s. per inhabitant. For a number of years afterwards there was a steady increase, and in 1892 the amount stood at 32s. 11d.—the highest figure yet attained; in 1894, however, this had decreased to 28s. 10d., but in 1895 the amount rose to 29s. 7d. In 1896, owing chiefly to the diminished wool traffic, and partly also to the Newcastle strike, the amount fell to 27s. 10d. During 1897 the amount again rose to 29s. 7d. The results achieved must be regarded as very satisfactory, especially in face of the general reduction in the freights :—

Year.	Amount.	Year.	Amount.
	£ s. d.		£ s. d.
1860	0 0 11·8	1889	1 8 9·4
1865	0 3 7·8	1890	1 9 1·0
1870	0 7 8·7	1891	1 12 0·5
1875	0 13 11·8	1892	1 12 11·0
1880	1 1 1·9	1893	1 10 3·1
1885	1 8 11·7	1894	1 8 10·6
1886	1 7 0·5	1895	1 9 7·8
1887	1 7 0·3	1896	1 7 9·6
1888	1 6 11·7	1897	1 9 7·1

The rolling stock of the New South Wales railways, on the 30th June, 1897, consisted of 502 engines, 420 tenders, 1,026 coaching stock, 9,455 goods vehicles, and 1,048 stock for departmental use only, making a total of 12,451 stock, and showing a decrease of 19 locomotives, 21 tenders, 6 coaching stock, 12 departmental stock, and 70 merchandise stock, on the figures for the previous year. Despite these decreases, however, the total traction power and carrying capacity have been increased. The number of engine miles run was 11,614,964, while the train miles numbered only 8,130,405.

During the year ended June, 1897, the wages paid by the Railway Department amounted to £1,092,511 as against £1,022,309 in the previous year. Of the former sum, the Maintenance Branch took £362,611, and the Locomotive Branch £493,267, while the Traffic Branch absorbed £236,633. Additions and improvements to stations, buildings, siding accommodation, etc., and rolling stock during the year cost £119,207, which was charged to capital account.

Compensation for personal injury was paid during the twelve months to the amount of £1,284, and for damage to and loss of goods, £1,610.

In consequence of the heavy claims made in connection with the accident which occurred at Redfern Station on the 31st October, 1894, the Government has passed an Act limiting the amount recoverable from the Railway Commissioners in connection with injuries sustained by any one person to £2,000.

The cost of fuel is, naturally, a large item in the railway accounts. For the last working year the expenditure on coal, coke, and wood totalled £71,763. The coal consumed on the locomotives amounted to 292,299 tons, or an average of ·72 cwt. per train mile.

There were altogether 10,357 persons employed on the railways of the colony on the 30th June, 1897, of which number 1,220 comprised the salaried staff, and 9,137 were on wages. For the previous year the total number was 9,745, of whom 1,229 were on salary and 8,516 on wages.

The management of the State railways of New South Wales was in the hands of a single Commissioner, under the Secretary for Public Works, up to the month of October, 1888. At that date the service was transferred to the department of the Colonial Treasurer, and the actual administration of the railways was entrusted to three Commissioners, to whom were given very extensive powers, amounting in fact to almost independent control. The change was made with the view of securing economic management of the lines, free from political interference.

Private Railway Lines.

In New South Wales the established policy has hitherto been to keep the railways under State management and control, and at the present time there are only four private lines in operation, with the exception of short lines to connect coal-mines with the main railways, etc. The Parliament granted permission to a company to construct a line from Deniliquin, in the centre of the Riverina district, to Moama, on the Murray, where it meets the railway system of Victoria. A considerable proportion of the wool and other produce of Riverina reaches the Melbourne market by this route. The line is 45 miles in length, and was constructed under a special Act of Parliament, assented to on the 3rd March, 1874. The land required was granted by the New South Wales Government, right being reserved for the purchase of the line at any time after twenty-one years from the passing of the Act. The total capital expended is £162,672, £40,000 of which was raised by debentures—£31,300 now outstanding—and there is a reserve fund of £14,187. The dividends formerly paid averaged 10 per cent., but the latest dividend declared was at the rate of 5 per cent. per annum. During the year 1888 a line, 35 miles 54 chains in length, was laid down from the Barrier silver mines, Silverton, and Broken Hill to the South Australian border. The total capital expended is £341,765, of which £80,000 was raised by debentures, and there is a reserve fund of £40,000. The line since its inception has had large support. In 1891 the large dividend of 70 per cent. was declared. The latest dividend declared was at the rate of 50 per cent. on paid-up capital. A short line connects Clyde with the Rosehill Racecourse, and another joins Liverpool with the Warwick Farm Racecourse. The following table shows the operations of these lines during the year 1896:—

Name.	Line.		Total Capital Expended.	Reserve Fund.	Debentures Outstanding.	Passengers Carried.	Goods Carried.	Live Stock Carried.	Train Miles Run.
	Length.	Gauge.							
	m. ch.	ft. in.	£	£	£	No.	Tons.	No.	No.
Deniliquin and Moama.	45 0	5 3	162,672	14,187	31,300	13,617	21,343	136,240	60,459
Silverton	35 54	3 6	341,765	40,000	Nil.	48,649	549,798	17,765	176,225
Clyde to Rosehill ..	3 0	4 8½	48,000	Nil.	Nil.	24,258	2,352	869	244
Warwick Farm ..	0 60	4 8½	5,700	..	..	18,716	Nil.	Nil.	73

The Deniliquin and Moama Company possesses 4 locomotives, 6 passenger carriages, and 63 goods carriages and vans; and the Silverton Company has 15 locomotives, 17 passenger carriages, and 600 goods vehicles. On the Rosehill and Warwick Farm lines Government rolling-stock is used.

Authority was obtained during 1893 for the construction of two private lines, namely, from Menindie to Broken Hill, in the Western district, and from Rosehill to Dural (Simpson's), in the Parramatta district. Three miles 28 chains of the latter line have been constructed, but not yet opened for traffic.

RAILWAY ACCIDENTS.

The railways of the colony have been as free from accidents of a serious character as the lines of most other countries. In order to obtain a common basis of comparison it is usual to find the proportion which the number of persons killed or injured bears to the total passengers carried. There is, however, no necessary connection between the two, for it is obvious that accidents may occur on lines chiefly devoted to goods traffic, and a more reasonable basis would be the accidents to passengers only compared with the number of passengers carried. The data from which such a comparison could be made are wanting for some countries; as far as the figures can be given, however, they are shown in the following table, which exhibits the number of passengers killed and injured per million persons carried. The figures are calculated over a series of years and brought down to the latest possible dates :—

Countries.	Average per million passengers carried.		Countries.	Average per million passengers carried.	
	Killed.	Injured.		Killed.	Injured.
Germany	0·1	0·4	Russia	0·6	2·5
Austria-Hungary	0·1	1·2	United Kingdom	0·1	1·6
Belgium	0·3	2·0	Spain	0·8	4·1
Sweden	0·1	0·2	Canada	1·0	3·9
France	0·2	1·0	New South Wales	0·1	3·6
Italy	0·3	2·0	Victoria	0·1	3·2
Norway	0·1	0·1	South Australia	0·4	0·8
Holland	0·1	0·3	New Zealand	0·3	3·3
Switzerland	0·1	1·0			

The above mode of comparison is not, however, a perfect one as the question of the distance travelled by each passenger is an important element of the risk run, and is omitted from consideration. If this were made a factor of the comparative statement, it would probably be found that the risk of each traveller by rail would show less variation in the different countries than would seem to be the case from the figures just given.

The persons meeting with accidents on railway lines may be grouped under three heads—passengers, servants of the railways, and trespassers; and the accidents themselves may be classified into those arising from causes beyond the control of the person injured, and those due to misconduct or want of caution. Adopting these classifications, the accidents on the New South Wales Railways during the year ended June 30, 1897, were as follow :—

Accidents arising.	Passengers.		Railway Employés		Trespassers, etc.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
From causes beyond their control	...	19	...	2	...	...	...	21
Through misconduct or want of caution	2	31	8	76	15	7	25	114
Total	2	50	8	78	15	7	25	135

These figures, while approximating to those of 1895–6, show a large decrease from those for 1894-5, the accident which occurred at Redfern Station in October, 1894, being alone responsible for 13 killed and 30 injured.

The returns of the railways of the United Kingdom show that during the year 1896 the number of persons killed was 1,008, and of persons injured, 5,877. The passengers killed and injured numbered 93 and 1,586 respectively, or 0·1 and 1·6 per million passengers carried; 447 railway employés were killed, and 3,986 were injured; there were 114 cases of suicide; and the other persons killed and injured were trespassers and persons who were crossing the lines.

In the following statement particulars regarding accidents on the lines of the colony are given for ten years:—

Year.	Passengers.		Railway Employés.		Trespassers, etc.		Total.	
	Killed.	Injured	Killed.	Injured	Killed.	Injured	Killed.	Injured.
1887	10	90	16	17	12	5	38	112
1888-89	3	38	16	27	12	9	31	74
1889-90	6	53	22	103	27	20	55	176
1890-91	7	42	32	114	21	14	60	170
1891-92	17	58	26	163	7	7	50	228
1892-93	7	47	10	87	11	5	28	139
1893-94	8	33	7	93	13	18	28	144
1894-95	16	77	17	70	9	13	42	160
1895-96	5	27	9	83	11	8	25	118
1896-97	2	50	8	78	15	7	25	135
Total	81	515	163	835	138	106	382	1,456

TRAMWAY AND OMNIBUS TRAFFIC.

Within the Metropolis of Sydney the public traffic, with the exception of the tramway system, is controlled by four Transit Commissioners, comprising the Mayor of Sydney, the Inspector-General of Police, a representative elected by the Aldermen of Suburban Municipalities, and one by the holders of licenses under the Commissioners. The tramways, like the railways, are the property of the Government, and are under the control of the Commissioners for Railways. There were in the year ended June, 1897, five distinct systems of tramways in operation, consisting of the Metropolitan and the Ashfield to Enfield lines, measuring together 42 miles; the North Sydney cable tramway, 2 miles; the North Sydney (Military Road) electric tramway, 3½ miles; the King-street to Ocean-street cable tramway, 2½ miles; and the Newcastle to Plattsburg Tramway (including Merewether and Tighe's Hill sections), 12 miles; giving a total of about 62 miles of lines in use. The Campbelltown and Camden line, 7½ miles, and the Kogarah and Sans Souci line, 5 miles, formerly classed as tramways, are now included under the head of railways.

The metropolitan tramways may fairly be regarded as street railways, and they are worked by locomotives of a special construction. A cable tramway was inaugurated at North Sydney some years ago;

and a line of a similar class, extending from the heart of Sydney to the suburb of Woollahra, *via* William-street, was completed in 1894, and opened on the 19th September in that year. The electric system was tried on a short line joining the Waverley and Randwick tram-lines, but proved less economical than steam power, and accordingly was abandoned in April, 1892, in favour of steam. The electric plant has been transferred to a tramway constructed along the Military Road, North Sydney, and opened in September, 1893. On the 1st March, 1897, an extension of the electric tramway from the terminus on the Military Road to the ferry at Mosman's Bay was opened to traffic. A bill was passed in 1896 for the construction of an electric tramway from Circular Quay, along George-street, to the Redfern Railway Station; and it is intended to construct another electric tramway from the terminus of the cable tramway, at Falcon-street, North Sydney, to the village of Willoughby.

The net return on tramway capital has varied greatly from year to year. The favourable results of the first four years encouraged the belief that the metropolitan tramways would prove a source of increase to the general revenue of the colony; but these anticipations were not realised during the next seven years, and it was not until 1890 that the net earnings exceeded the rate of interest payable on the money borrowed for the construction of these works. The following table gives some interesting particulars respecting the metropolitan tramways, exclusive of the King-street to Ocean-street cable tramway and the North Sydney cable and electric tramways. In the year 1879 the tramways were open for only three and a half months, and for part of that time were worked by horse power. The accounts since 1887, like those relating to the railways, have been made up to the 30th June in each year:—

Year.	Length of Line.	Tram Mileage.	Total Earnings.	Working Expenses.	Earnings per Tram Mile.	Working cost per Tram Mile.	Proportion of working cost to gross earnings.	Net Earnings.	Capital invested in Lines open.	Interest on Capital.
	miles.		£	£	d.	d.	p. cent.	£	£	per cent.
1879	1½	13,270	4,416	2,278	79·87	41·19	51·59	2,138	22,269	33·00
1880	4	84,074	18,980	13,444	54·18	38·38	70·83	5,536	60,218	12·34
1881	9½	296,906	62,549	52,107	50·56	42·12	83·31	10,442	169,450	6·16
1882	22	670,649	126,202	103,136	45·16	36·91	81·72	23,066	412,561	6·80
1883	25	1,076,096	190,699	178,877	42·53	39·89	93·80	11,822	544,105	2·22
1884	27¼	1,242,491	219,942	215,167	42·48	41·56	97·83	4,775	643,111	0·76
1885	27¼	1,220,500	223,340	207,995	43·91	40·90	93·13	15,345	708,109	2·17
1886	27½	1,222,943	226,367	201,737	44·42	39·59	89·12	24,630	742,113	3·32
1887	29¼	1,220,026	214,125	201,468	42·12	39·63	94·08	12,657	731,582	1·76
1888	29¾	1,246,543	221,060	204,227	42·56	39·32	92·38	16,833	742,555	2·27
1889	29¼	1,338,386	225,833	206,092	40·49	36·95	91·25	19,741	771,255	2·56
1890	30¼	1,474,646	249,508	207,517	40·60	36·46	83·17	41,991	790,555	5·31
1891	33½	1,553,048	270,365	221,505	41·78	34·23	81·92	48,860	857,455	5·74
1892	37	1,613,443	279,321	229,145	41·55	34·09	82·04	50,176	932,907	5·54
1893	38	1,681,232	271,041	214,824	38·69	30·67	79·26	56,217	947,775	5·94
1894	40¼	1,737,846	250,809	206,554	34·64	28·53	82·35	44,255	954,035	4·64
1895	40¼	1,740,235	230,583	186,081	31·80	25·66	80·70	44,502	962,037	4·62
1896	40¼	1,845,626	227,525	187,811	29·59	24·42	82·54	39,714	961,778	4·13
1897	40¼	2,121,017	238,023	195,142	26·93	22·08	81·98	42,881	968,925	4·42

The fares paid on the tramways average about 1d. per mile, the lines being divided into sections of about 1 and 2 miles. The number of persons using the tram-cars has not been ascertained with any exactness, as the tickets collected give only a partial indication of the number travelling. It is believed that the fares paid by passengers average 3d. a journey, so that the number of journeys in the year ended 30th June, 1897, reached the enormous total of 18,019,913, or about 44 for every person living in the metropolitan area. Cash fares in lieu of tickets are allowed, although this system does not largely prevail, as an extra fee is charged when money is tendered.

The following table shows the total and average cost of the various sections of the metropolitan steam tramways open on the 30th June, 1897 :—

Section.	Length.		Total Cost.	Cost per mile.
	ms.	chs.	£	£
Railway Station to Bridge-street	1	59	96,520	55,551
Liverpool-street to Randwick and Coogee	5	9	113,955	22,289
Darlinghurst Junction to Waverley and Woollahra	4	40	60,360	13,413
Waverley to Bondi Beach	2	8	38,604	18,383
Waverley to Randwick	1	30	11,182	8,132
Crown-street Junction to Cleveland-street	0	69	17,551	20,349
Railway Station to Glebe and Forest Lodge	2	25	44,888	19,411
Newtown and Parramatta-street Junction to Dulwich Hill	4	7	63,793	15,607
Forest Lodge Junction to Leichhardt, Five Dock, and Abbotsford	6	57	61,409	9,148
Railway Station Junction to Botany	6	66	90,787	13,302
Forest Lodge to Gladstone Park, Balmain	2	66	28,682	10,153
Newtown Bridge to St. Peters	0	63	13,092	16,625
Redfern to Moore Park	1	6	18,582	17,286
Cost of construction	40	25	659,405	16,357
Equipment :—				
Tramway workshops £55,261				
Rolling stock 239,804				
Machinery 12,342				
Furniture 2,113				
	......		309,520	....
Total or average	40	25	968,925	24,035

The cost of construction and equipment of the Ashfield to Enfield line, which was opened on 23rd September, 1891, was £16,371. For the year ended June, 1897, the revenue amounted to £1,107, and the working expenses to £1,764, showing a loss of £657 in connection with actual working, or of £1,230 if the interest on capital be taken into consideration. The number of passenger fares collected was 265,776.

The revenue of the North Sydney cable line was £12,343, and the expenses £10,170. The net receipts, therefore, amounted to £2,173, or 1·88 per cent. upon £115,471, the total cost of the line and its equipment. The number of passenger fares collected was 2,962,298.

The North Shore electric tramway yielded a revenue of £3,537; and the working expenditure totalled £3,289, or within £248 of the gross receipts. The loss on the working of the line was £1,111. The number of passenger fares collected was 848,782. The cost of construction of this line amounted to £36,844.

On the King-street to Ocean-street cable tramway the receipts amounted to £30,241, and the working expenses were £20,969, leaving a net return of £9,272, or 5·22 per cent. upon £117,421, the total cost of the line and its equipment. The number of passenger fares collected was 7,256,741.

The Newcastle to Plattsburg tramway line and contingent sections showed a gross revenue of £21,444, while the working expenses totalled £17,547, so that the net receipts for the year came to £3,897. The cost of construction and equipment was £137,638, so that the net return was 2·83 per cent. upon the capital invested, as against 1·72 per cent. in the previous year. The number of passenger fares collected was 5,150,475.

In the following table are given the revenue and expenditure on and the capital invested in all State tramways since their inception in 1879. The Camden to Campbelltown tramway was placed among the railways during 1888, and the Kogarah-Sans Souci line was similarly dealt with in 1889:—

Year.	Total Length of Lines.	Capital Expended.			Value of Fares received.	Total Earnings.	Working Expenses.	Net Earnings.
		On Lines open for Traffic.	On Extensions not opened.	Total.				
	Miles.	£	£	£	£	£	£	£
1879	1½	22,061	....	22,061	4,416	4,416	2,278	2,138
1880	4½	60,218	1,683	61,901	18,968	18,980	13,444	5,536
1881	11¼	181,659	38,659	220,318	61,921	62,549	52,107	10,442
1882	29⅝	447,939	10,206	458,145	127,124	128,354	120,181	8,173
1883	32½	579,439	104,686	648,125	190,209	193,929	183,218	10,711
1884	35	683,179	106,320	789,499	218,885	223,454	215,086	8,368
1885	35	748,506	142,217	890,723	220,332	227,144	207,898	19,246
1886	36½	854,260	131,342	985,602	230,374	234,143	207,635	26,508
1887	51	917,995	105,640	1,023,635	225,764	229,772	211,722	18,050
1888	43½	907,987	106,757	1,014,664	241,838	241,838	217,629	24,209
1889	38⅘	909,595	107,333	1,016,928	243,563	243,563	221,835	21,728
1890	39½	933,614	87,194	1,020,808	262,835	268,962	224,073	44,889
1891	42½	1,004,212	35,866	1,040,078	292,499	292,850	239,679	53,171
1892	48	1,099,659	28,946	1,128,605	304,899	305,090	248,591	56,499
1893	49	1,118,471	94,590	1,213,061	295,352	295,367	233,808	61,559
1894	58⅓	1,248,986	79,923	1,328,909	278,185	278,194	229,283	48,911
1895	61	1,428,518	....	1,428,518	282,316	282,316	230,993	51,323
1896	61	1,434,896	....	1,434,896	289,181	289,181	236,283	52,898
1897	62½	1,452,670	....	1,452,670	306,695	306,695	248,881	57,814

During the year ended June, 1897, the total amount of wages paid by the Tramway Department was £173,308, as against £165,100 in the previous year, and £165,181 in 1894–5. Of the sum of £173,308, £28,984 was paid to the Maintenance Branch, £99,430 to the Locomotive Branch, and £44,894 to the Traffic Branch.

The number of men employed was 1,454, as against 1,347 in 1895–6 and 1,292 in the previous year. The salaried staff numbered 55, and 1,399 were on wages. Taking railways and tramways together, the number of persons employed was 11,801, of whom 1,275 were on the salaried staff, and 10,536 were on wages. To the latter the sum of £1,265,819 was paid as wages during the year, being £1,092,511 for services on the railways, and £173,308 for the performance of work on the tramways. The payments for wages in 1895–6 were:—Railways, £1,022,309; tramways, £165,100; total, £1,187,409. In the preceding year the wages were:—railways, £959,920; tramways, £165,181; total, £1,125,101. The average number of working days for the workshop staff for the year ended June, 1897, was 311, as against 309¼ for the previous year and 275 for 1894–5; and the receipts per man on the wages staff—railways and tramways—averaged £119 11s. 2d. for the twelve months.

Any statement as to the number of persons injured on the tramways of the city compared with the total number of persons carried, must be taken as approximate, as the latter is not definitely known. A record of the accidents which occurred during the year ended 30th June, 1897, shows them to have been 18 in number, of which 9 were fatal, and 9 were cases of injury. There was 1 fatal accident, and 2 cases of non-fatal accident, to passengers. One servant of the Department was killed. Fourteen accidents in connection with trams occurred to persons who were neither passengers nor employés, 7 of which were fatal, and 7 non-fatal.

The number of passengers carried on the tramways during the year ended 30th June, 1897, was about 36,000,000, which would give the rate of fatal accidents to passengers as 0·028 per million, and of non-fatal accidents as 0·056 per million. Seeing that the tramways for a great part of their course traverse crowded streets, the number of fatal and non-fatal accidents—7 and 7 respectively—to persons who were neither passengers nor employés must be considered very small.

PRIVATE TRAMWAYS.

There are two tramways under private control within the Metropolitan area. One of these branches from the Illawarra Line at Rockdale and runs down to Lady Robinson's Beach, a distance of 1 mile, being chiefly used by excursionists visiting the shores of Botany Bay. The line was constructed in 1885. The second line passes through the township of Parramatta. It commences at the Park Gates, and continues as far as the Newington Wharf at Duck River, a distance of 3 miles, where it connects with the Parramatta River steamers conveying passengers and goods to and from Sydney. The line was laid down in 1883. A private tramway 2¾ miles in length was opened in 1891 from Fassifern to Toronto, on Lake Macquarie.

A private line was some time ago constructed at North Sydney for the purpose of connecting the cable tramway on the heights of St. Leonards with the village of Gordon. On this line a magnificent suspension bridge has been built, the only one of its kind in the colony. It is designed in three spans—one of 500 ft., and two end spans each of 150 ft., with an altitude of 180 ft. above water level. The tramway was, however, not quite completed, and has never been opened for traffic.

A Bill was passed in 1896 authorising the construction of a private tramway, 21 miles in length, to connect with the Government railway near Capertee on the line from Wallerawang to Mudgee.

OMNIBUSES, CABS, AND WAGGONETTES.

In addition to the tramways, the citizens of Sydney are well provided with means of travelling within the city and suburban limits, as there are numerous omnibus and cab proprietaries. The traffic employs a little over 8,900 horses and, including the licensed drivers, some 3,300 men.

The number of cabs registered and licensed by the Transit Commissioners under the Municipal by-laws is 1,066, in addition to which there are 1,355 omnibuses and waggonettes, and 571 drays and vans. The public interest is secured against exaggerated demands on the part of licensed cabmen and other drivers of public vehicles by a system of fares fixed on a scale liberal to the licensee, whilst not too high for the public to fairly pay. The drivers are placed under the direct control of the Transit Commissioners, who have power to obtain redress from the owners of the vehicles, should any just complaints be made against them. The following shows the number of vehicles of each class licensed during the year 1896, and the number of registered drivers :—

Description.	Vehicles.	License Fees.	Drivers, etc.	License Fees.
	No.	£	No.	£
Omnibuses	339	1,665	[*]589	205
Waggonettes	16	63		
Cabs	1,066	1,565	1,312	480
Drays and vans	571	539	592	148
Total	1,992	3,832	2,493	833

[*] Includes 61 conductors.

POSTS AND TELEGRAPHS.

In the matter of postal and telegraphic communication the colony of New South Wales is liberally provided for. Not only is the intercolonial telegraphic system fairly perfect, but the colony is in direct communication with Europe and the outer world by means of the cables connecting with the various Asiatic continental telegraph lines. A submarine cable also connects the colony with New Zealand, and has its Australian terminus within sight of the spot where Captain Cook landed on the shores of Botany Bay, and within a stone's throw of the monument erected to the memory of La Pérouse—the unfortunate and gallant emulator of the great English navigator—and the tomb of Père Le Receveur, the botanist attached to his staff.

The history of the Postal Department of New South Wales is interesting as affording a striking illustration of the manner in which very small beginnings have led to great results. For the first twenty-three years of the colony's existence there were neither regular post-offices nor means of postal communication. The first post-office was established by Governor Macquarie in the year 1810, Mr. Isaac Nichols being appointed Postmaster. The office was in High-street (now known as George-street), at the residence of Mr. Nichols, who was, "in consideration of the trouble and expense attendant upon this duty," allowed to charge, on delivery to the addressee, 8d. for every English or foreign letter of whatever weight, and for every parcel weighing not more than 20 lb., 1s. 6d., and exceeding that weight, 3s. The charge on Colonial letters was 4d., irrespective of weight; and soldiers' letters, or those addressed to their wives, were charged 1d. Very little improvement in regard to postal matters took place for some years. In 1825 an Act was passed by Sir Thomas Brisbane, with the advice of the Council, "to regulate the postage of letters in New South Wales," giving power for the establishment of post-offices, and for the fixing of rates of postage. A proclamation was subsequently issued, fixing the rates of postage and the salaries and allowances of the postmasters; and at the same time persons were invited to tender for the conveyance of mails between Sydney and Parramatta, Windsor and Liverpool; between Liverpool and Campbelltown; and from Parramatta to Emu Plains, and thence to Bathurst. It was, however, not until 1828 that the provisions of the Act were put into full force. The rates of postage appear to have depended upon the distance and the difficulty of transmission. The lowest single inland rate was 3d., and the highest 12d., the postage on a letter increasing according to its weight, and the minimum fee being charged on letters not exceeding ¼ ounce. Letters between New South Wales and Van Diemen's Land were charged 3d. each (ship rate), and newspapers 1d. Other ship letters were charged 4d. single rate, and 6d. for any weight in excess. The privilege of franking was allowed to the Governor and a number of the chief public officials, and letters to and from prisoners passed free under certain regulations. In 1828 the total amount of salaries paid to the country postmasters was £34 7s. 9d., and the establishment in Sydney consisted of one principal postmaster, one clerk, and one letter-carrier. A letter-carrier was subsequently appointed for Parramatta, and he was authorised to charge the public 1d. on every letter delivered by him, which was his only remuneration. In 1831 a twopenny post was established in Sydney; and in 1835, under Sir Richard Bourke, the Act of 1825 was repealed, and another Act passed, which fixed the charge on a single letter at 4d. for 15 miles, 5d. for 20 miles, 6d. for 30 miles, and so on up to 1s. for 300 miles. In 1837 a post-office was established in Melbourne, which was then, of course, a part of New South

Wales. Stamps were introduced in the same year in the shape of stamped covers or envelopes, which are believed to have been the first postage stamps ever issued.

In the year 1838 the Sydney establishment had grown until it consisted of one postmaster-general, one accountant, six clerks, six letter-carriers, and one office-keeper, or fifteen persons in all. The revenue for that year was £8,390, and the expenditure was £10,357; there were as many as forty post-offices throughout the colony, which then included what are now known as Victoria and Queensland, besides which, as New Zealand was not a separate colony until 1841, the only post-office she had—at Korraika—was paid through the New South Wales Government. An overland mail to Adelaide was established in 1847, the postage on a single letter being 1s. 6d. The Postal Act was amended again in 1849, during the government of Sir Charles Fitzroy, when the postage on town letters was fixed at 1d., and on inland letters at 2d., while the postage on ship letters was 3d. in addition to the inland rate. The use of postage stamps in the present form was authorised, and the privilege of franking was abolished, petitions to the Queen, the Governor, and the Executive and Legislative Councils being the only communications allowed to pass free through the post.

From the discovery of gold in the year 1851 the history of the post-office has been one of progress and improvement. The Postmaster-General was originally a non-political officer, as the Registrar-General and the Auditor-General are at present. In the year 1855—the first for which an annual report was laid before Parliament—there were in the colony altogether 155 post offices. The head office was in George-street, on the same site as the present edifice, but the structure was small and inconvenient, notwithstanding its doric columns and pediment in front. There were no electric telegraphs in the colony at that time, and the arrival of vessels at the Heads was signalled to the Observatory by means of flags and semaphores. It was in September, 1855, that the first railway was opened in New South Wales, and prior to that time the Southern and Western mails used to leave the General Post Office in old-fashioned mail coaches every evening. During that year the total number of miles travelled by the postal contractors, by coach and on horseback, was 1,023,255. The number of letters passing through the Post Office was 2,114,179, of which 617,041 are described as "foreign," or, in other words, were addressed to places beyond the colony. The number of newspapers was 2,100,989, of which 1,281,613 were inland, and 819,376 were "foreign." Book parcels and packets were not reckoned separately, but were counted as letters. Ten petitions to the Governor or the Council were conveyed free during the year. The revenue of the Department for 1855 was £24,902, and the expenditure was £60,221, while the staff numbered 223 persons in all, of whom 56 were attached to the office in Sydney. The annual report states, with something akin to pride, that the communication with Victoria was not less than three times a week.

The first iron pillar letter-receivers in Sydney were erected in 1856. During the same year 22 miles of railway were utilised for postal purposes, and 16½ miles were added in the following year. The number of letters delivered in Sydney in 1856 was 1,336,032, and in the country 1,481,416, being an average of about 10½ to every person in the community. There were 86,914 registered letters in 1857, and 7,873 oz. of gold were sent through the post that year, as against 23,712 oz. in the previous year. The postal revenue in the year 1857 amounted to £35,716, of which £34,031 was derived from the sale of stamps. The expenditure amounted to £63,865, out of which sum the conveyance of mails in the colony absorbed £41,324, without reckoning £20,000 towards the subsidy for the conveyance of English mails. In his report for 1857 the Postmaster-General is obliged to admit that the mail contract for the conveyance of mails between the Australasian Colonies and the United Kingdom had proved "an utter failure, so far as the stipulated time-table might be taken as a criterion." Only 10 monthly mail-steamers arrived that year, and but one to contract time; while only 11 were despatched. The time allowed was 58 days from Southampton to Sydney, and 56 days from Sydney to Southampton. In 1896 there were 1,503 post-offices in the colony, besides 503 receiving offices and three travelling post offices. The postal lines for that year extended over 34,083 miles, on which the mails were conveyed 2,692 miles by rail and tram, 824 miles by steamer, 20,309 miles by coach and 10,258 miles on horseback. The number of miles actually travelled by the mails was 9,773,500, being an increase of 435,500 over the mileage of the previous year, and of 933,500 over that of 1894.

But while the number of miles travelled by the mails in 1896 was over nine times the mileage travelled in 1855, the number of letters posted during the same period had increased 32 times, and the number of newspapers over 21 times. In 1896 the number of letters was 68,895,300 of which 62,681,000 were posted within the colony, or 49 per head for every individual of the population. The number of newspapers was 45,558,300, of which the number posted in the colony during that year was 41,807,300, or 33 per head. Packets and book parcels numbered 15,603,600, of which 14,714,000 were posted within the colony, or about 11 per head; while in 1858, the first year in which they were enumerated separately, there were only 68,564 packets and parcels. Post cards were first introduced in 1876, when the number sent was 128,786; in 1896 no less than 949,600 were posted within the colony.

Double cards, which may be closed against inspection, and which are designated letter cards, were made available for the use of the public on the 1st July, 1894, the rate charged being 1½d. each. These cards may be transmitted within the colony, as well as to Victoria, Queensland, South Australia, Western Australia, Tasmania, New Zealand, Fiji, and British New Guinea. The number carried up to the end of the year was 142,400, while 11,300 were received, making the total which passed through the post office 153,700. In 1896 the number posted was 380,000, and received from abroad 13,080, making a total of 393,080 passing through the office.

A parcels' post, for inland and intercolonial transmission, was inaugurated on 1st October, 1893, the maximum weight being fixed at 3 lb. and 11 lb., according to mode of conveyance. The number of parcels carried under this system up to the close of that year was 44,265; while during 1894 there were 349,218 parcels carried. The foreign system, which has been in force since August, 1886, added, in 1893, 19,437 parcels to the total already given; in the following year, 18,672; while the total number for 1895 was 422,777. In 1896 the total number carried was 506,111, of which 426,345 were inland, 55,464 intercolonial, and 24,302 foreign.

The progress made in regard to the means of postal communication with the United Kingdom and the continents of Europe and America is also marvellous. Instead of the unsatisfactory ocean mail service of 1857, which nominally brought monthly mails, with news 58 days old, there are now four great lines of ocean steamships, which bring mails *via* the Suez Canal at least once a week, the time occupied in the conveyance of the mails averaging 34 to 35 days. In addition, there is another mail service *via* San Francisco, which averages 38 days in transit between London and Sydney, and arrives and departs monthly; also a monthly service *viâ* Vancouver, by which mails are sent from Sydney to London in about 39 days. In the interests of trade, the Queensland Government subsidises a steam service with London *via* Torres Straits, and advantage is taken of these vessels to send mail matter. This route, however, is but little used by New South Wales. The following table shows, as far as possible, the average time and the quickest time occupied in the transmission of letters by various routes between London and Sydney during 1896:—

Service.	London to Sydney.		Sydney to London.	
	Average Time.	Quickest Time.	Average Time.	Quickest Time.
	days.	days.	days.	days.
Per Peninsular and Oriental S. N. Co.'s packets, *via* Brindisi	$33\frac{23}{26}$	32	$34\frac{9}{26}$	33
,, Orient S.S. Co.'s packets, *via* Naples ...	$34\frac{4}{13}$	33	$33\frac{25}{26}$	32
,, Union S.S. Co.'s packets, *via* San Francisco	$38\frac{8}{13}$	37	$37\frac{7}{13}$	37
,, Messageries Maritimes' packets, *via* Marseilles	*	*	$32\frac{1}{3}$	31
,, Nord-Deutscher Lloyd's packets, *via* Genoa	*	*	$36\frac{1}{13}$	34
,, Canadian-Australian packets, *via* Vancouver	*	*	$38\frac{8}{11}$	36

*These packets are not used by the General Post Office, London.

Regular steam communication with England was first established in 1852. Prior to that time the colony had to depend upon the irregular arrival and despatch of sailing vessels, but in that year the steamships Australia, Chusan, and Great Britain were despatched from England, making the voyage in 60 days, and causing a strong desire in the minds of the colonists for a more frequent and steady system of communication with the Old World. The outbreak of the Crimean War in 1854 hindered the accomplishment of this object for a while, but in 1856 a line of steamers was again started, and the service was carried on by the Peninsular and Oriental Company and the Royal Mail Company for some years, without, however, giving so much satisfaction to the public as might have been expected.

As far back as 1854 a proposal was made for the establishment of a line of mail packets *via* Panama, and negotiations on the subject were carried on for several years between the British Government and the Governments of New South Wales and New Zealand. The result was that in 1866 the line was started, and continued in operation until the end of 1868, when it was terminated through the failure of the company by which it had been carried out. In the following year this colony, in conjunction with New Zealand, inaugurated a mail service *via* San Francisco, which, with a few interruptions and under various conditions, has been continued up to the present time. The contract expired in November, 1890, and has since then been renewed from year to year, New South Wales at present paying a subsidy of £4,000.

The establishment of a mail route *via* America had the effect of stimulating the steamship owners who were engaged in the service *via* Suez, and from that time there was a marked improvement in the steamers laid on, as well as in the punctuality and speed with which the mails were delivered. The Peninsular and Oriental Company have, with very few interruptions, carried mails for the colonies almost from the inception of the ocean steam service until now. Towards the end of 1878 the Orient Company commenced carrying mails between Australia and the United Kingdom, and has continued to do so ever since. More recently the fine steamers of the Messageries Maritimes of France and the North German Lloyd's have entered the service between Europe and Australia, so that there are now one or two mails received and despatched every week.

During 1893 direct communication was established between Sydney and Vancouver Island, British Columbia, the New South Wales Government undertaking to pay an annual subsidy of £10,000 for the maintenance of this service for a period of three years. In May, 1896, this agreement was renewed for a further period of three years. Contracts were made in 1895 by the Imperial Government with the Peninsular and Oriental and the Orient Companies for the extension of the mail service until the 31st January, 1898; and in the beginning of 1897 a new contract was made, to take effect from 1st February, 1898, the maximum time for delivery of the mails between Sydney and London being reduced, and the amount of the subsidy payable by Australia and Tasmania being also lessened.

The amount paid by each contributing colony, on the basis of population, towards the cost of the Federal Ocean Mail Service, for the year 1896, was as follows:—

	£	s.	d.
New South Wales	27,075	5	0
Victoria	25,078	10	0
Queensland	9,747	3	4
South Australia	7,577	1	8
Tasmania	3,407	16	8
Western Australia	2,114	3	4
Total	£75,000	0	0

The contribution from the United Kingdom is £95,000.

The approximate net cost to the colony of the Federal Ocean Mail Service *via* Suez, the San Francisco Service, and the Vancouver Service for the years 1894, 1895, and 1896 may be gathered from the following statement:—

Service.	Estimated Net Cost.		
	1894.	1895.	1896.
	£	£	£
Suez (per Peninsular and Oriental and Orient Companies) ...	12,877	12,438	10,510
San Francisco (per Union S.S. Co. of New Zealand) ...	1,892	2,123	1,645
Vancouver (per Canadian-Australian Line) ...	7,846	9,041	7,717

A subsidy of £1,200 per annum was for several years paid to the A.U.S.N. Co. for the transport of mails between Sydney and New Caledonia, New Hebrides, Sandwich Islands, and Fiji. The same company also provides a twenty-one days' service between the principal Islands of the New Hebrides Group. A subsidy of £1,000 was paid for this service between the Islands when it was a monthly one. These votes were allowed to lapse at the end of 1891.

In the year 1865 the office of Postmaster-General was made a political one, at first without, and subsequently with, a seat in the Cabinet. The old Post-office building in George-street was found so small and inconvenient that it was resolved to build a larger and more commodious edifice on the same site, and in 1863 the business of the department was removed to a temporary wooden building in Wynyard-square. It was not until 1873 that the construction of the new building was sufficiently advanced to allow of the officers removing from the crowded and ill-ventilated structure in Wynyard-square, where they had carried on their business under great disadvantages and difficulties, to the present palatial structure, which is in every respect a credit to the colony. The head-quarters of the Electric Telegraph Department, the Money Order Office, and the Post-office Savings Bank are in the same building, so that the Postmaster-General has around him all the various branches over which he presides. The table given below shows the operations of the Post-office in five-year periods from 1855 to 1885, and annually since that date to the end of 1896. For 1885 and succeeding years, the figures showing the number of persons employed and the income and expenditure refer to the Department as a whole; prior to that year they refer to the Post Office only. Also, from 1885 the income is exclusive of interest on Savings Bank investments, and interest due on uninvested Savings Bank balances in the Treasury; and the expenditure is exclusive of interest allowed to Savings Bank depositors:—

Year.	Post-offices.	Receiving Offices.	Persons employed.	Extent of Postal Lines.				Distance actually travelled.	Cost of conveyance of mails, Foreign and Inland.	Income.	Approximate expenditure.
				Railway, Tramway, and steamer.	Coach.	Horse.	Total.				
	No.	No.	No.	miles.	miles.	miles.	miles.	miles.	£	£	£
1855	155	8	223	*	*	*	*	1,023,255	45,412	24,902	60,221
1860	289	*	289	60½	1,757½	6,413	8,231	1,461,518	44,303	45,613	71,391
1865	435	*	513	140½	2,528	9,323	11,992	2,521,212	49,840	70,985	83,659
1870	562	*	690	339	3,865	10,038	14,242	3,062,458	48,649	84,441	86,722
1875	752	7	967	435	5,407	11,829	17,671	3,787,757	138,912	107,761	196,368
1880	927	119	1,536	891	8,717	12,819	22,427	5,246,373	174,238	194,084	268,128
1885	1,115	202	3,205	1,797	11,736	13,150	26,683	6,621,996	226,105	485,489	573,617
1886	1,157	217	3,168	1,948	12,540	12,606	27,094	6,891,200	233,723	503,646	603,784
1887	1,167	263	3,227	2,074	13,305	12,135	27,514	7,015,600	264,886	521,564	627,151
1888	1,203	288	3,387	2,219	14,411	11,530	28,160	7,144,500	248,403	570,800	613,566
1889	1,261	305	3,676	2,263	14,914	11,541	28,718	7,209,400	212,725	598,394	618,852
1890	1,338	325	3,821	2,273	15,774	11,547	29,594	7,463,000	231,467	637,975	677,216
1891	1,384	344	4,070	3,085	16,370	11,802	31,257	8,235,000	207,357	661,608	687,226
1892	1,423	377	4,478	3,217	17,467	11,616	32,300	8,508,700	210,426	652,268	740,118
1893	1,423	404	4,845	3,412	18,380	11,000	32,792	8,784,600	209,792	643,569	788,500
1894	1,445	450	4,982	3,473	19,331	10,260	33,064	8,840,000	214,670	626,864	763,976
1895	1,470	502	4,974	3,473	19,545	10,675	33,693	9,338,000	210,354	648,852	765,259
1896	1,503	503	4,814	3,516	20,309	10,258	34,083	9,773,500	208,619	695,626	743,841

* Not recorded.

It will be noticed that the Postal Department is carried on at a considerable annual loss to the State. This is due in a great measure to the wide area over which the population of the country is scattered, which necessitates a proportionately large expenditure for the carriage of mails; and also to the fact that newspapers, which form the bulk of the mail matter, are carried free. But it has always been held that the safe and regular despatch and delivery of the mails is an item of too much importance in the political, commercial, and social life of the colony to be neglected, even though it should entail a heavy charge upon the general revenue. An additional sum of £84,000 would be obtained by the adoption of a uniform rate of postage of 2d. per ½ oz. throughout the colony, and the abolition of the free transmission of newspapers would produce a further sum of £25,000, making together £109,000. This would more than wipe out the deficiency in the postal revenue, including the interest charge on the cost of construction of telegraphs.

The revenue of the department for 1896 included the following amounts :—Postage (less approximate value of postage stamps used as duty stamps), £475,760 ; electric telegraphs, £153,549 ; telephones, £31,955 ; money order commission, £15,232 ; fees for private bags and boxes, £6,709 ; collections from other Governments, £4,081 ; poundage on postal notes, £7,839, and miscellaneous receipts, £502. The expenditure for the year comprised :—Salaries, £405,175; conveyance of mails, £208,619; cable subsidies, etc., £18,434 ; postal and telegraphic working expenses (various), £89,773 ; postage stamps re-purchased from the public and used as remittances by public officials, £15,624 ; and allowances to Railway Department for transacting postal and public telegraph business at railway offices, £6,216. Exclusive of 830 mail contractors and 101 mail porters, 4,814 persons were employed by the Department, of whom 1,192 were engaged in the head office. The following return will give an idea of the magnitude of the work done by the Post Office of New South Wales :—

Year.	Number of Letters.		Number of Newspapers.		*Packets & Book Parcels.		Post Cards.
	Beyond the Colony.	Inland and town.	Beyond the Colony.	Inland.	Beyond the Colony.	Inland.	
1855	617,041	1,497,138	819,376	1,281,613	‡......	‡......	......
1860	868,746	3,362,015	910,478	2,758,305	12,196	71,540	......
1865	1,106,045	5,222,308	1,028,954	3,660,904	28,852	221,052	......
1870	1,103,200	5,980,300	1,206,600	2,608,100	36,700	121,000	......
1875	1,719,100	11,998,800	1,385,900	4,876,700	82,300	274,700	......
1880	2,776,000	18,956,500	2,381,200	11,409,800	146,600	565,000	153,360
1885	5,328,200	34,023,000	3,987,900	21,579,500	552,000	2,894,200	341,000
1886	5,582,700	37,267,200	4,276,300	†23,210,000	865,800	3,983,000	348,700
1887	5,624,000	39,221,900	4,744,400	†25,617,600	980,800	4,549,900	442,100
1888	6,202,800	42,783,200	5,255,000	28,500,400	1,041,600	5,560,300	520,920
1889	6,346,700	47,624,600	5,599,000	30,931,800	1,305,000	6,564,400	630,100
1890	8,109,300	54,908,400	6,949,900	33,647,300	2,214,300	6,725,300	677,400
1891	9,145,600	59,033,000	7,233,400	35,283,900	2,902,100	8,166,400	808,700
1892	11,540,600	65,025,800	9,529,300	35,991,200	3,274,900	9,105,300	827,360
1893	10,616,500	66,924,000	9,055,600	35,872,300	3,287,100	8,773,500	850,420
1894	11,125,500	56,867,800	9,503,800	32,163,500	5,654,100	7,919,500	§1,170,000
1895	11,974,300	56,104,700	9,235,800	35,667,100	4,206,200	7,053,000	§1,294,700
1896	12,468,900	56,426,300	9,324,000	36,234,300	6,306,000	9,297,600	§1,406,500

* Not including packages transmitted by parcels post. † Estimated.
‡ Included with letters. § Inclusive of letter-cards.

The progress exhibited by the table just given is astonishing. In 1855 the total number of letters and newspapers, inland and foreign, was only a shade over 2 millions each, whereas in 1896 the number of letters had grown to nearly 69 millions, and newspapers to over 45 millions, without reckoning over 15½ million packets and book parcels which, in the year first mentioned, were included with the letters.

The charge on letters between the Australasian colonies and the United Kingdom, which had for a long period been at the rate of 6d. per half-ounce *via* Italy, and 4d. by the long sea route, was reduced in

1891 to 2½d. By an arrangement made at the Postal Congress held at Vienna in the middle of 1891, New South Wales, as well as the rest of the Colonies of Australasia, entered the Universal Postal Union on the 1st October, 1891. The effect of this has been to extend the reduced rate to all countries embraced in the Union. The letters posted in New South Wales to countries outside Australasia increased from 986,400 in 1891 to 1,101,000 in 1892, the newspapers from 793,600 to 873,100, and packets from 142,000 to 194,900; but in 1896 the number of letters had increased to 1,285,800; newspapers had decreased to 833,700, while packets had increased to 316,200.

By an enactment made in June, 1893, it is required that newspapers be registered at the General Post Office, and both newspapers and supplements must be printed in New South Wales, from type set up therein, in order to entitle the publications to be transmitted as newspapers. If posted within seven days from the date of publication, newspapers are transmitted within the colony free, if not exceeding 10 oz. in weight, and at the rate of ½d. each for every additional 10 oz. Newspapers for Victoria, South Australia, Western Australia, Tasmania, New Zealand, and Fiji (if printed in New South Wales) are charged ½d. each up to 10 oz., and ½d. for every additional 10 oz.; and to Queensland and British New Guinea, ½d. for every 2 oz. To the United Kingdom or foreign countries the charge is 1d. each for any weight up to 4 oz., and ½d. for every additional 2 oz., the rates having been assimilated in October, 1894.

The following figures show the number of registered letters passing through the General Post Office in each of the last ten years:—

Year.	Number.	Year.	Number.
1887	419,388	1892	1,075,241
1888	555,207	1893	812,036
1889	646,151	1894	856,128
1890	780,202	1895	902,448
1891	1,047,080	1896	1,000,665

Of the registered letters in 1895 and 1896, there were respectively 326,626 and 346,549 from and to places beyond the colony, and 575,822 and 654,116 inland.

The great increase in the number of registered letters up to 1892 was not a natural growth, but was largely due to correspondence relating to the so-called "consultations," or lottery-sweeps connected with horse-racing, probably one-third of the letters registered in 1892 being associated with these sweeps. The Government dealt with this evil in an Amending Postal Act, assented to in 1893. This Act provides that letters addressed to promoters of sweeps within the colony, whose names have been gazetted, shall not be delivered to the addressees, but opened and returned to the senders. The great fall in 1893 in the number of registered letters received at the General Post Office was due to the operations of this Act.

Compared with the other provinces of Australasia and with the United Kingdom, New South Wales occupies a favourable position as regards the number of letters, post cards, and newspapers carried per head of population, as may be seen from the following table :—

Country.	Number per head of population.		Country.	Number per head of population.	
	Letters and postcards.	News-papers.		Letters and postcards.	News-papers.
New South Wales ...	55	35	New Zealand	45	19
Victoria	71	26	Australasia	52	27
Queensland	38	25	United Kingdom......	55	4
South Australia	51	26	England and Wales..	61	4
Western Australia ...	84	52	Scotland	48	4
Tasmania	46	30	Ireland............... ...	29	4

New postal routes to the extent of 1,124 miles were opened during 1896, while 777 miles of routes were abandoned.

MONEY ORDERS AND POSTAL NOTES.

The money order system was brought into operation in New South Wales in January, 1863, when nineteen offices were opened—the head office in Sydney, and eighteen branch offices in various parts of the colony. In June of the same year the operation of the system was extended to the United Kingdom and all the Australasian colonies with the exception of Tasmania, and the number of offices in the colony was increased to forty-seven. The colony of Tasmania entered into the arrangement in 1865, and the Department has continued steadily to progress. In 1896 there were 626 Money Order Offices in the colony, six new offices having been established and four abolished during the year. During 1896 provision was made for telegraphic money orders being issued and paid at Money Order Offices connected by telephone with the telegraph system, subject to stringent conditions to prevent abuse. Postal notes were introduced on the 1st October, 1893. They range in value from 1s. to 20s., and may be obtained at all Money Order Offices, the poundage varying from 1d. to 4d. Postal notes may be exchanged between New South Wales and the other Australasian colonies except Western Australia and New Zealand. The revenue derived from the postal note system during the last quarter of 1893 was £548 17s. 10d. ; during the year 1894, £3,877 13s. 4d. ; during 1895, £6,316 12s. 4d. ; and during 1896, £7,838 17s. 4d. In the chapter dealing with Private Finance, further particulars of the money order and postal note systems will be found.

POST OFFICE SAVINGS BANK.

The Post-office Savings Bank, which, like the Money Order Office, is under the control of the Postmaster-General, was established in the year 1871 at the General Post Office, Sydney, with branches at the principal country towns. The growth of this branch of the service has fully kept pace with those already mentioned. In 1896 there were 502 Post-office Savings Banks in various parts of the colony, an increase of 3 over the number open in the previous year. During the year 43,255 new accounts were opened, and 34,572 accounts were closed, the number of accounts remaining open at the close of the year being 140,386. The amount of deposits received was £2,110,579,—a decrease of £83,555 as compared with the business of the previous year. The sum of £128,630 was added to depositors' accounts for interest. The balance to the credit of depositors at the end of the year was £4,372,965. The average amount of each deposit was £6 17s. 2¼d., and the average balance at the credit of each depositor was £31 2s. 11¾d. Further information respecting the Post-office Savings Banks will be found in the chapter on Private Finance.

TELEGRAPHS.

The electric telegraph was first used by the public of New South Wales on the 26th January, 1858, when the line from Sydney to Liverpool, 22 miles in length, was brought into operation. From this small beginning the system has increased until in 1896 there were 856 stations in the colony, and 12,418 miles of line open, carrying 30,820 miles of wire in actual use. The following table gives a view of the business of the Electric Telegraph Department, from 1865 to 1896:—

Year.	No. of Stations.	Number of Telegrams despatched, received, and passed through the Colony.	Revenue received.	No. of miles of Line.	No. of miles of Wire.	Cost of construction.
			£			£
1865	55	*138,785	29,769	....	2,989	145,446
1870	86	*173,812	28,550	....	5,247	195,545
1875	137	*719,745	48,657	....	8,012	253,391
1880	289	1,319,537	84,110	....	13,188	462,226
1885	404	2,625,992	155,073	....	19,864	641,669
1886	425	2,661,126	158,128	....	20,797	666,028
1887	434	3,258,733	164,511	....	21,444	684,600
1888	460	3,936,830	185,965	....	22,219	704,912
1889	485	3,932,670	186,862	10,732	22,606	713,663
1890	628	4,101,449	193,707	11,231	23,598	743,698
1891	674	4,046,251	191,319	11,697	24,780	767,872
1892	706	2,976,109	185,014	11,905	26,443	801,918
1893	724	2,853,691	157,482	12,097	27,326	820,822
1894	813	2,464,074	147,903	12,201	28,085	831,471
1895	834	2,635,456	145,901	12,316	28,799	840,380
1896	856	2,796,776	159,741	12,418	30,820	889,476

* Number despatched only.

The number of telegrams received and despatched during the year, inland telegrams being counted once only, amounted to 2,660,312, or about 2 per head for every individual of the population.

The state of telegraphic construction in the principal countries of the world at the latest available dates is given herewith. The figures are interesting, though the circumstances of Australasia and the older countries are so dissimilar as to make a comparison between them more curious than valuable:—

Country.	Length in Miles—		Country.	Length in Miles—	
	Of Line.	Of Wire.		Of Line.	Of Wire.
Australasia	48,782	101,296	Italy	24,717	95,767
Argentine Republic	20,415	......	Japan	9,740	29,802
Austria-Hungary	43,548	145,777	Mexico	40,990	......
Belgium	3,946	19,645	Netherlands	3,497	12,511
Brazil	10,143	21,936	Norway	5,195	11,164
Canada	31,540	......	Portugal	3,985	8,839
Cape Colony	6,316	......	Russia	74,276	171,663
Chili	11,465	......	Spain	17,628	41,875
Denmark	3,245	9,068	Sweden	5,339	15,175
France	73,550	275,370	Switzerland	4,524	12,502
Germany	82,323	314,379	Turkey	20,750	33,040
Greece	4,781	5,836	United Kingdom	37,329	230,682
India (inclusive of Native States).	44,648	138,256	United States	189,918	826,929

CABLE SERVICES.

At a Conference of the Postal and Telegraph authorities held in Sydney in February, 1891, the question of the cable rates came under discussion, and a proposal of the Eastern Extension Telegraph Company was agreed to, by which the colonies of New South Wales, Victoria, South Australia, Western Australia, and Tasmania undertook to make good half the loss which the Company would sustain by a reduction in the schedule of cable charges. The amended cable rates came into force in May, 1891. For European messages the rates were reduced from 9s. 4d. to 4s. per word for ordinary messages, from 7s. 1d. to 3s. 6d. per word for Government messages, and from 2s. 8d. to 1s. 10d. per word for press messages, proportionate reductions being made for messages to countries other than those in Europe. The amount to be guaranteed to the Company for the time during which the contract was in existence was one half of the amount of receipts short of the sum of £237,736 (the amount of the Company's receipts in 1889, after deducting out-payments), the other half of the loss to be borne by the Company. Under this agreement, New South Wales had to pay in 1892 the sum of £15,397 7s. 8d. A conference held in Melbourne decided, in view of the heavy loss to the colonies, to increase the rate for ordinary messages from 4s. to 4s. 9d. per word, the extra cost being apportioned as follows:—To the Cable Company, 7d. per word;

to South Australia, 2d. per word. The new rates came into force on 1st January, 1893, concurrently with an arrangement under which New Zealand became a contributor, on the same terms as the other colonies, towards the guarantees to the Company and South Australia in connection with the reduction in the international rates.

From May, 1893, to April, 1894, the amount paid by New South Wales to the Cable Company in respect of the guarantee in connection with the reduced rates mentioned abovè, was £2,056 4s. 6d., £272 12s. 8d. also being paid to South Australia. The total contribution for that year in respect of cable services was £19,598 18s. 4d.; the amount paid by the colony for the year ended 30th April, 1895, was £17,659 5s. 1d.; while in the following year the amount was £16,166 18s. The payments to the Cable Company and the South Australian Government have now disappeared, the receipts in both cases being in excess of the guarantee. For the twelve months ended 30th April, 1897, the only contributions which New South Wales was called upon to pay were:—Duplicate Cable Subsidy between Port Darwin and Banjowangie, £13,150 15s. 10d.; Tasmanian Cable Subsidy, £1,704 14s. 8d.; and New Zealand Guarantee, £853 15s. 5d.; total, £15,709 5s. 11d. The expenditure mentioned is exclusive of the guarantee in connection with the New Caledonian cable mentioned below.

In the early part of 1892 an agreement was entered into between New South Wales and the Société Française des Télégraphes Sousmarins (now known as the Compagnie Française des Cables Télégraphiques) by which the latter undertook to lay down a submarine cable, for the purpose of establishing telegraphic communication between Queensland and New Caledonia, in consideration of New South Wales and Queensland each guaranteeing a sum of £2,000 yearly for a period of thirty years. Provision was made that the Governments should have the use of the cable for official messages up to this amount. In October, 1893, the cable was opened.

The construction of a Pacific cable, to connect Canada and the Australasian colonies, was advocated by an Intercolonial Postal and Telegraphic Conference, held in New Zealand during March, 1894, and was reaffirmed by conferences of a similar character, which met in Hobart in February, 1895; and in Sydney, in January, 1896. The Colonial Conference, which sat in Ottawa in the early part of 1894, also recommended that such a cable should be constructed; and the Secretary of State for the Colonies appointed a Commission, on which the British, Canadian, and Australasian Governments were represented, for the purpose of inquiring into the best route for the cable, and the probable cost of its construction. This Commission recommended the adoption of the proposals made at the Sydney Postal Conference, which provided for the distribution of the cost of construction and maintenance equally between Great Britain, Canada, and Australasia, and fixed the landing places within British territory.

The following table shows the amount of outward business transacted by New South Wales with Europe and the East during the last six years :—

Year.	Cable Messages sent from New South Wales.	Amount received.	Year.	Cable Messages sent from New South Wales.	Amount received.
	No.	£		No.	£
*1891	14,982	46,192	1894	15,146	50,567
1892	16,511	41,746	1895	17,761	60,652
1893	15,587	50,625	1896	19,826	68,040

* Partly old, partly new rates.

Compared with 1891, the year 1896 shows, therefore, an increase of 4,844 messages, and of £21,848 in revenue.

TELEPHONES.

The total number of lines connected with the telephone system of the colony on the 31st December, 1896, was 5,105, of which 4,550 were in Sydney and suburbs, and 555 in the country. The number of telephones in use was 5,459. The length of wire used in transmission of messages cannot be given, as the telegraph wires are largely used for telephones also. Some particulars regarding telephones in the Australasian colonies in 1896–7 will be found in the following table :—

Colony.	Exchanges.	Telephones.	Length of Wires (distinct from Telegraph Wires).	Revenue.
	No.	No.	miles.	£
New South Wales	22	5,459	*.........	31,955
Victoria	13	2,939	10,135	37,511
Queensland	22	840	1,043	5,228
South Australia	8	1,022	2,727	15,514
Western Australia	6	942	577	6,398
Tasmania	4	722	549	3,382
New Zealand	29	5,747	5,201	29,249

* Not furnished.

POPULATION.

ONE of the first results of the Census of 1891, taken on the 5th April, was the readjustment of the estimates of population. Prior to that date there had been no actual count of the people of New South Wales since 1881, but an approximate return was made up of the estimated population on the 31st December of each year. This was done by taking into account the increase caused by the excess of births over deaths, and of arrivals over departures. It is evident that if these data could be ascertained exactly, there would be no difficulty in making an accurate estimate of the population at any time. But although the machinery for the registration of births and deaths ensures a fairly correct return under these heads, it is not so easy to obtain exact particulars respecting arrivals and departures—especially departures. The lists of passengers arriving by sea are usually accurate; but in the case of persons leaving the colony, it is found that large numbers go on board steamers at the last moment, without having previously booked their names, and so are not recorded amongst the emigrants. It therefore becomes necessary, when estimating the population, to make allowance for unrecorded departures. The results of the Census of 1891, however, showed that the allowance made on this account during the previous ten years was not sufficient, and that the estimates were therefore in excess of the actual population. Consequently they were recast, and, as now presented, the figures will be found to differ from those published prior to 1892.

The following is an estimate of the population of each of the Australasian colonies on the 30th June, 1897:—

Colony.	Population.
New South Wales	1,311,440
Victoria	1,170,304
Queensland	480,079
South Australia*	356,835
Western Australia	157,781
Tasmania	167,062
New Zealand†	719,292
Australasia	4,362,793

* Including Northern Territory. † Exclusive of 39,854 Maories.

In the preceding table due allowance has been made for unrecorded departures, and, in the case of Western Australia, for unrecorded arrivals which took place in the northern parts of that enormous territory, where there did not exist proper official means of keeping account of the adventurers who, from time to time, attracted by rumours of its vast natural resources, visited that comparatively unknown land. The proportion of population belonging to each colony at the middle of 1897 was as follows:—New South Wales, 30·06 per cent.; Victoria, 26·82 per cent.; Queensland, 11·00 per cent.; South Australia, 8·18 per cent.; Western Australia, 3·62 per cent.; Tasmania, 3·83 per cent.; and New Zealand, 16·49 per cent.

The estimated population of New South Wales at the close of various years from 1861 to 1896, will be found hereunder:—

Year.	Males.	Females.	Total.
1861	201,574	156,404	357,978
1866	235,116	193,697	428,813
1871	282,846	234,912	517,758
1876	333,515	280,666	614,181
1881	429,020	353,060	782,080
1886	543,260	446,080	989,340
1891	630,870	534,430	1,165,300
1892	646,540	551,110	1,197,650
1893	658,990	564,380	1,223,370
1894	672,950	578,500	1,251,450
1895	685,160	592,710	1,277,870
1896	695,150	602,490	1,297,640

For the whole of Australasia the average rate of increase of population during the ten years ended 1896 was 2·46 per cent., the highest rate in any one year within the period being 3·18 per cent. in 1887, and the lowest, 2·00 per cent. in 1896. The rush to Western Australia since 1891 has given that colony the largest average annual increase during the decade, namely, 13·30 per cent. The movement of population was subject to great variation in the course of the ten years, an actual decrease of 0·83 per cent. being experienced in 1888, while in 1896 the highest rate of growth was reached with 36·28 per cent. Queensland is the colony which, next to Western Australia, has had the highest rate of increase, the average annual rate being 3·43 per cent., with a maximum of 5·90 per cent. in 1887, and a minimum of 2·35 per cent. in 1890. New South Wales had an increase averaging 2·75 per cent. annually, with a maximum rate of 3·87 per cent. in 1891, and a minimum of 1·55 in 1896; while Victoria occupied the lowest position, with an average rate of increase of but 1·62 per cent. It is interesting to compare the two great colonies of the Australian group in this matter of movement of population during the past few years. In the first two years of the decade the rate of increase in Victoria was higher than in New South Wales, and at the Census of 1891 the former colony had a majority of 8,171 inhabitants. In every year since 1889, however, New

South Wales has had the greater rate of increase, Victoria actually experiencing a decrease to the extent of 0·58 per cent. in 1896, at the end of which year it was estimated that the southern province had 122,752 inhabitants less than New South Wales. In the other three colonies of Tasmania, New Zealand, and South Australia, the annual increase during the last ten years was at the rate of 2·36 per cent., 1·95 per cent., and 1·70 per cent. respectively. The maximum rate in Tasmania was 5·04 per cent. in 1891; in New Zealand, 3·36 per cent. in 1893; and in South Australia, 3·36 per cent. in 1892. In Tasmania the minimum rate of increase was 0·34 per cent. in 1892, and in New Zealand, 0·44 per cent. in 1888; while in South Australia an actual decrease at the rate of 0·51 per cent. was experienced in the year 1888. The rate of increase for the whole of Australasia was 3·18 per cent. in 1887; in 1896 it was 2 per cent.

The growth of population in the continent of Australia, and also in the whole of Australasia, in periods from 1861 to the end of 1896, is shown in the following table:—

Year.	Continent of Australia.	Australasia.
1861	1,076,666	1,265,898
1866	1,345,058	1,646,540
1871	1,601,295	1,970,066
1876	1,855,996	2,360,555
1881	2,204,495	2,822,999
1886	2,677,911	3,398,658
1891	3,112,359	3,899,036
1892	3,181,697	3,985,274
1893	3,241,613	4,068,302
1894	3,310,182	4,153,766
1895	3,378,867	4,238,407
1896	3,442,873	4,323,148

The following table gives the net increase of male and female population in New South Wales during each year since 1887, allowance being made for the persons whose departure from the colony was not formally recorded:—

Year.	Males.	Females.	Total.
1887	15,090	15,900	30,990
1888	14,840	15,910	30,750
1889	15,820	14,920	30,740
1890	20,640	19,400	40,040
1891	21,220	22,220	43,440
1892	15,670	16,680	32,350
1893	12,450	13,270	25,720
1894	13,960	14,120	28,080
1895	12,210	14,210	26,420
1896	9,990	9,780	19,770

Tested by the voluntary influx of population—and no test could be more practical—the attraction which New South Wales has offered to the settler for many years is most marked. As long as the balance of attraction remained with the other colonies, so long did the tide of immigration set to their shores; but for many years past New South Wales has offered a more substantial reward to the settler than any of its neighbours—if Western Australia be excepted—and the result is seen in the increased numbers who have come hither. The table given below shows the total increase in population in each of the Australasian colonies during the ten years between the Census of 1881 and that of 1891, together with a distribution of this increase between the two sources:—

Colony.	Total Increase.	Natural Increase.	Net Increase due to Immigration.
New South Wales	380,766	217,938	162,828
Victoria	278,059	161,698	116,361
Queensland	180,193	77,417	102,776
South Australia	58,009	86,287	(—) 28,278
Western Australia	23,398	9,292	14,106
Continent of Australia	920,425	552,632	367,793
Tasmania	30,962	25,001	5,961
New Zealand	134,621	127,184	7,437
Australasia	1,086,008	704,817	381,191

The sign (—) indicates decrease.

This table shows that out of a total increase by immigration of 381,191 persons, the large proportion of 43 per cent. found a home in New South Wales, as against 31 per cent. attracted to Victoria, and 27 per cent. to Queensland. In the total of 162,828 persons credited to New South Wales are included 34,079 assisted immigrants. During the same period 103,140 assisted immigrants arrived in Queensland; but as the net increase from immigration was only 102,776, it is evident that some of the people who were assisted to emigrate to that colony did not remain there. Since 1860, the year following the separation of Queensland, the arrivals in New South Wales have in every year, 1862 and 1896 alone excepted, exceeded the departures. The greatest apparent excess during any one year was in 1883, when the number of arrivals was greater than the departures by 28,579.

Assisted immigration dates from 1832. From that year until the practical cessation of the system in 1888, it was, with slight interruptions, the settled policy of New South Wales to grant assistance to desirable persons who wished to make their home in the colony. In the 1893 edition of this book will be found a statement showing the increase by assisted immigration up to that year. During 1894 the assisted immigrants arriving in the colony numbered 67, of whom 13 were adult males, 28 adult females, 18 male children, and 8 female children; during 1895, 37 persons, of whom 2 were adult males, 16 adult females, 12 male children, and 7 female children; and during 1896, 17 persons, of whom 8 were adult males, 3 adult females, 3 male children, and 3 female children. It may be explained that the persons still assisted in making their way to the colony are brought out in terms of a promise which was made to emigrants while the system of assisted immigration was in force, namely, that if any members of a family choosing to remain behind should afterwards desire to follow their friends to their new home, they should be assisted to emigrate on the same terms. To the end of 1896, the assisted immigrants who arrived in the colony numbered 211,923, viz., 76,839 men, 81,912 women, 27,246 boys, and 25,926 girls. Of these, 77,276 have arrived since the year 1861, viz., 28,931 men, 29,079 women, 9,760 boys, and 9,506 girls.

As recorded in the Shipping Office, the persons arriving in the colony by sea during the last ten years were as stated below. The shipping authorities do not classify the children according to sex :—

Year.	Adults.			Children.	Total Immigrants.
	Male.	Female.	Total.		
1887	43,769	15,236	59,005	4,413	63,418
1888	40,295	15,446	55,741	4,435	60,176
1889	39,208	16,719	55,927	4,855	60,782
1890	43,124	19,107	62,231	5,285	67,516
1891	44,519	19,318	63,837	6,082	69,919
1892	39,538	17,757	57,295	4,902	62,197
1893	42,536	18,603	61,139	5,770	66,909
1894	46,917	21,823	68,740	6,848	75,588
1895	46,338	22,719	69,057	6,994	76,051
1896	38,164	18,342	56,506	6,127	62,633

The departures during the same period were as follow :—

Year.	Adults.			Children.	Total Emigrants.
	Male.	Female.	Total.		
1887	38,162	12,439	50,601	3,619	54,220
1888	36,278	14,553	50,831	4,070	54,901
1889	32,535	14,030	46,565	3,753	50,318
1890	34,302	15,535	49,837	4,043	53,880
1891	33,877	14,512	48,389	3,684	52,073
1892	33,839	14,828	48,667	4,020	52,687
1893	37,923	16,379	54,302	4,548	58,850
1894	41,060	19,292	60,352	5,624	65,976
1895	40,747	19,549	60,296	6,038	66,334
1896	36,941	18,766	55,707	6,809	62,516

A record of the arrivals and departures overland is only available for the last nine years. The figures are as follow :—

Year.	Arrivals.			Departures.		
	Males.	Females.	Total.	Males.	Females.	Total.
1888	32,868	9,036	41,904	29,502	9,024	38,526
1889	44,124	17,231	61,355	44,507	17,215	61,722
1890	50,183	19,012	69,195	47,621	17,937	65,558
1891	40,826	28,409	69,235	39,631	26,696	66,327
1892	37,091	24,959	62,050	37,362	25,372	62,734
1893	27,519	17,656	45,175	29,176	20,031	49,207
1894	26,247	16,562	42,809	27,328	18,114	45,442
1895	33,427	19,368	52,795	35,839	21,286	57,125
1896	37,536	21,324	58,860	35,740	21,950	57,690

THE CENSUS OF 1891.

A Census is taken in New South Wales once in ten years. The last enumeration took place on the night of Sunday, 5th April, 1891, and full particulars relating to it will be found in the "General Report on the Eleventh Census of New South Wales," Sydney, 1894.

DISTRIBUTION OF SEXES.

The distribution of the sexes has undergone little change for many years past. This will be evident from the following figures, which give the proportions of males and females to the whole population at the last four decennial censuses, and at the end of each year since the last census was taken :—

Year.	Males.	Females.	Year.	Males.	Females.
1861	56·57	43·43	1893	53·87	46·13
1871	54·67	45·33	1894	53·77	46·23
1881	54·86	45·14	1895	53·62	46·38
1891	54·14	45·86	1896	53·57	46·43
1892	53·98	46·02			

The excess of male over female population is chiefly at the ages of 20 to 50 years, and is only what is to be expected in a country the population of which is largely recruited by immigration. It will be observed, however, that, owing to the lower death-rate of females, the disproportion between the sexes is being steadily lessened.

AGES OF THE PEOPLE.

The Census of 1891 has furnished full particulars with regard to the ages of the people of New South Wales at that date. The table given below shows the number of persons, male and female, at each quinquennial period of age. The males in their 21st year numbered 11,224, and the females, 10,857 :—

Ages.	Total Population.			Per 100,000 of Population.	
	Males.	Females.	Persons.	Males.	Females.
Under 5 years	84,014	81,736	165,750	13,715	15,728
5 years and under 10......	72,895	71,359	144,254	11,900	13,731
10 ,, ,, 15......	62,230	61,186	123,416	10,159	11,774
15 ,, ,, 20......	54,267	54,476	108,743	8,859	10,483
20 ,, ,, 25......	57,963	53,441	111,404	9,462	10,284
25 ,, ,, 30......	59,895	46,950	106,845	9,778	9,035
30 ,, ,, 35......	52,115	36,690	88,805	8,508	7,060
35 ,, ,, 40......	40,380	27,303	67,683	6,592	5,254
40 ,, ,, 45......	31,446	22,237	53,683	5,133	4,279
45 ,, ,, 50......	27,054	18,658	45,712	4,417	3,590
50 ,, ,, 55......	22,753	14,853	37,606	3,714	2,858
55 ,, ,, 60......	16,716	10,812	27,528	2,729	2,081
60 ,, ,, 65......	12,690	7,762	20,452	2,072	1,494
65 ,, ,, 70......	7,030	4,905	11,935	1,148	944
70 ,, ,, 75......	5,048	3,692	8,740	824	710
75 ,, ,, 80......	2,842	1,903	4,745	464	366
80 ,, ,, 85......	1,294	877	2,171	211	169
85 ,, ,, 90.....	422	284	706	69	55
90 ,, ,, 95......	142	79	221	23	15
95 ,, ,, 100......	21	27	48	3	5
100 ,, and over	12	7	19	2	1
Unspecified	1,333	435	1,768	218	84
All ages...............	612,562	519,672	1,132,234	100,000	100,000

It will be noticed that there is a gradual diminution in the number of persons at the different periods of age from infancy to old age, the only exception being the period between 20 and 25 years of age. The females show a steady falling off at each period from the top to the bottom of the column; but the males show an increase in the two periods from 20 to 25 years and from 25 to 30 years—the ages when the physical energies of men should be at the highest point. Altogether, the table shows the composition of the people of this colony to approach very nearly that of a theoretically perfect community.

SUPPORTING, MILITARY, AND REPRODUCTIVE AGES.

Assuming that males from 20 to 60 years of age are capable of supporting themselves, it will be found that New South Wales possessed at the last census period no less than 306,911 males of that desirable class, or 50·48 per cent. of the male population, excluding aborigines. There were but 29,170 males of 60 years of age and over, representing only 4·8 per cent. of the total male population; while the remaining 271,922 males, forming 44·72 per cent. of the total number, were under 20 years of age. The number of males from 20 to 40 years—the military age, that is, the age of those upon whom the first call for the defence of the country would naturally be made—was 209,589, equal to 34·47 per cent. of the male population.

From 15 to 45 years of age is usually considered the reproductive period of life in females. There were at the census date 239,503 such females in New South Wales, or 46·42 per cent. of the female population.

It may be presumed that at the middle of the year 1897 the population of New South Wales included 354,600 males from 20 to 60 years of age, 314,100 under 20 years, and 33,700 of 60 years and upwards. The number of males of military age at that date may be set down at 242,100. Females of the reproductive period of life would number 282,700.

BIRTHPLACES OF THE PEOPLE.

Of the 1,123,954 people, exclusive of 8,280 aborigines, who composed the population of New South Wales when the Census was taken in 1891, the birthplaces of all but 1,301 were recorded; but of those who failed to state the place of their nativity 1,206 had British, and 95 had foreign names. The following table shows the birthplaces of the population:—

Birthplaces.	Males.	Females.	Total.
British Empire.			
Australasia—			
New South Wales	363,495	361,520	725,015
Victoria	22,792	17,976	40,768
Queensland	4,987	5,186	10,173
South Australia	9,850	7,866	17,716
Western Australia	244	220	464
Tasmania	3,075	2,776	5,851
New Zealand	4,883	4,132	9,015
Australia (Colony not defined)	471	403	874
United Kingdom—			
England	92,617	56,615	149,232
Wales	3,232	1,765	4,997
Scotland	23,026	13,795	36,821
Ireland	39,449	35,602	75,051
European Possessions	127	50	177
Asiatic Possessions—			
India	1,309	491	1,800
Others	248	57	305

Birthplaces.	Males.	Females.	Total.
British Empire—continued.			
African Possessions—			
South Africa	239	191	430
Mauritius	166	97	263
Others	33	12	45
American Possessions—			
Dominion of Canada	885	189	1,074
West Indies	350	94	444
Others	73	20	93
Polynesian Possessions	164	134	298
Total, British Empire	571,715	509,191	1,080,906
Foreign Countries.			
European Countries (including Possessions out of Europe)—			
German Empire	6,976	2,589	9,565
France and Possessions	1,718	552	2,270
Russia	987	189	1,176
Austria-Hungary	534	54	588
Spain and Possessions	95	43	138
Portugal and Possessions	233	16	249
Switzerland	494	100	594
Netherlands and Possessions	249	35	284
Belgium	143	38	181
Denmark and Possessions	1,276	212	1,488
Turkey	280	98	378
Greece	241	14	255
Other Balkan States	18	1	19
Sweden and Norway	3,237	160	3,397
Italy	1,229	248	1,477
Europe (country not defined)	2	2	4
Asiatic Countries—			
Chinese Empire	13,048	109	13,157
Japan	69	11	80
Others	173	11	184
African Countries	138	57	195
American Countries—			
United States	2,509	870	3,379
Others	186	57	243
Polynesia	369	117	486
Total, Foreign Countries	34,204	5,583	39,787
At Sea—			
British Names	1,067	863	1,930
Foreign Names	20	10	30
Unspecified—			
British Names	913	293	1,206
Foreign Names	84	11	95
Total Population (exclusive of Aborigines)	608,003	515,951	1,123,954

A comparison of the racial composition of the people at the last four census periods is afforded by the table given below. It will be seen that in the course of the thirty years from 1861 to 1891 the proportion of Australasian-born to the total population advanced from 47·03 per cent. to 71·53 per cent., while that of the persons born in the British Isles declined from 45·19 per cent. to 23·5 per cent. :—

Nationality.	1861.	1871.	1881.	1891.
	per cent.	per cent.	per cent.	per cent.
New South Wales	45·69	58·38	61·95	64·03
Other Australasian Colonies	1·34	2·67	5·95	7·50
Aborigines	......	0·19	0·22	0·73
English	23·98	17·33	14·32	13·18
Irish	15·63	12·49	9·21	6·63
Scotch	5·19	3·98	3·34	3·25
Welsh	0·39	0·37	0·41	0·44
Other British Subjects	0·99	0·68	0·69	0·71
Total, British Subjects	93·21	96·09	96·09	96·47
Chinese	3·70	1·43	1·36	1·16
German	1·56	1·31	1·00	0·84
Other Foreigners	1·53	1·17	1·55	1·53
Total, Foreigners	6·79	3·91	3·91	3·53

Of the Australasian natives living within New South Wales when the 1891 Census was taken, 280,624 were adults, the birthplaces of whom were as follow :—

Birthplace.	Males.	Females.	Total.
New South Wales	115,530	116,571	232,101
Victoria	15,225	10,825	26,050
Queensland	2,003	2,060	4,063
South Australia	5,215	3,576	8,791
Western Australia	167	150	317
Tasmania	2,599	2,248	4,847
New Zealand	2,258	1,562	3,820
Colony undefined	359	276	635
Total	143,356	137,268	280,624

The question of the Chinese and other alien races is elsewhere discussed in this chapter.

CENTRALISATION OF POPULATION.

One of the most notable problems in the progress of modern civilisation is the tendency of the population, everywhere exhibited in the chief countries of the world, to accumulate in great cities. Not only is this apparent in England, France, and other countries where the development of manufactures has brought about an entire change in the employments of the people, and has necessarily caused the aggregation of workers in towns, but it is seen also in the United States, the most favoured country for the agricultural labourer. It is noticed, too, that in all new countries there is a tendency for immigrants to locate themselves in and near the great cities, and the colony of New South Wales is no exception to the rule.

As far back as 1861, when the native-born population amounted to only 45·69 per cent. of the inhabitants of the colony, the number living in Sydney and suburbs formed only 42·13 per cent. of the metropolitan population; while British-born colonists, forming 46·18 per cent. of the inhabitants of the colony, constituted 52·93 per cent. of the dwellers in the city and environs. In 1891 the native-born formed 64·76 per cent. of the total population, but the proportion of native-born resident in the metropolitan area had risen to 58·63 per cent., and the proportion of British-born had declined to 30·51 per cent. Of late years, natives of the other colonies who have been attracted to New South Wales have shown no decided preference for either the metropolis or the rural districts; but such slight difference as there is is in favour of town life. The non-British population have, as a rule, preferred the country districts to Sydney. Latterly, however, there has been a tendency on the part of certain foreign elements to gravitate towards the chief city. This is especially noticeable amongst Chinese and Hindoos, as well as in the case of Syrians and others from the Levant.

The conditions of progress in the Australasian colonies approximate somewhat to those of the United States, and a comparison between the increase of town population there and in New South Wales is not without interest. The great defect in the comparison arises from the fact that in America there exist many large cities, while in New South Wales there is practically only one. The population of the United States for four periods, and the proportion of rural to city population, will be seen below :—

Year.	Population of the United States.	Population of Cities of United States.	Percentage of Urban to Total Population.
1860	31,443,321	5,072,256	16·13
1870	38,558,371	8,071,875	20·93
1880	50,155,783	11,318,547	22·57
1890	63,622,250	18,284,385	29·20

The rapid increase of city population shown above has given rise to considerable speculation. It seems an established fact that the movement of population towards the towns in the old countries of the world is a sign of the desire of the rural population for an improvement in their circumstances; for, like every other commodity, labour gravitates to the market where it will obtain the highest price. In America the increase in town population has been derived mainly from abroad; and there seems no reason to suppose that, large as the proportion of urban population has become, it has reached an unhealthy stage. In Australasia, however, the case is different, and it is impossible to believe that healthy progress is consistent with the wonderful growth of the metropolis at the expense of the country. Over 57 per cent. of the increase due to immigration in New South Wales during the period 1881–91 was retained in the metropolis. In this colony the proportion of town population is even more remarkable than in the United States, as will be seen from the table here given, showing the percentage of population of Sydney and suburbs and of the country districts:—

Year.	Metropolitan.	Country.
	per cent.	per cent.
1861	26·70	73·30
1871	26·73	73·27
1881	30·34	69·66
1891	34·26	65·74

For the neighbouring colony of Victoria, the corresponding figures are:—

Year.	Metropolitan.	Country.
	per cent.	per cent.
1861	25·89	74·11
1871	28·87	71·13
1881	32·81	67·19
1891	42·49	57·51

In the table of urban population of the United States on page 598 are included all towns exceeding 8,000 inhabitants; nevertheless, the proportion to the whole is much less there than in either New South Wales or Victoria, where only the chief city has been taken. The case of Melbourne is even more marked than that of Sydney; for during the thirty years covered by the table the growth of Melbourne at the expense of the rural districts has been proportionately greater than the growth of Sydney, and up to the year 1892 its actual numerical increase was also greater. During the last four years, however, a large number of breadwinners have left these cities for the west, while some, again, have gone to the country in search of occupation which they have failed to find in town, and consequently the proportion of urban population is now somewhat less than it was at the date of the last census. At the close of 1896 it is estimated that Sydney and suburbs contained 31·60 per cent. of the population of New South Wales, and Melbourne and suburbs 38·40 per cent. of the population of Victoria. The following figures represent the population of the city and suburbs of Sydney and of Melbourne at the end of each year :—

Year.	Sydney.	Melbourne.	Year.	Sydney.	Melbourne.
1861	95,596	139,860	1892	411,710	474,810
1871	136,483	206,780	1893	421,030	444,832
1881	237,300	296,347	1894	423,600	438,955
1886	308,270	389,512	1895	408,500	447,565
1891	399,270	491,942	1896	410,000	451,110

The extraordinary progress of Sydney and Melbourne has no parallel amongst the cities of the Old World. Even in America the rise of the great cities has been accompanied by a somewhat corresponding increase in the rural population. In the Australasian colonies, however,—perhaps for the first time in the history of the world—is seen the disquieting spectacle of magnificent cities growing with wonderful rapidity, and embracing within their limits one-third of the population of the territory of which they are the centre. The chief cities of the other Australasian colonies present somewhat similar features to Sydney and Melbourne; but, with the exception of Adelaide, which contains fully two-fifths of the whole population of South Australia, they are not so large in proportion to their rural population.

The one satisfactory feature in connection with the growth of the chief cities of Australasia is that, in spite of their inordinate size when compared with the population of the colonies, they have not grown by the process of absorbing the rural population. This question was fully discussed by the author in his report upon the last census of New South Wales, and it may suffice to repeat here that the growth of the Australian cities is due mainly to the physical configuration of the continent, which makes no other mode of development possible—for here are no great rivers with leagues of navigable waterway stretching into the heart of the country far remote from the seaports. To some extent the growth of cities has also been favoured by the commercial development of the colonies. For many years wool-growing has been the staple industry of the country; and while the actual tending of flocks needs few hands, and those widely scattered, the handling of bales of wool at a convenient place of shipment demands all the resources of a great commercial centre. Also, gold-digging, to which the colonies owe so much, is not an industry likely to promote permanent settlement in the interior. The miner of the past was in every respect a nomad: if successful in his quest after the precious metal, he became an emigrant to the old world or a sojourner in an Australian capital.

The estimated population of the chief cities of the Australasian colonies at the end of 1896 is given below:—

City.	Population, 31st December, 1896.
Sydney	410,000
Melbourne	451,110
Adelaide	145,212
Brisbane	100,913
Wellington	41,758
Hobart	37,885
Perth	34,129

Wellington, the capital of New Zealand, is not the most populous city in that colony; Auckland, Christchurch, and Dunedin, all contain larger populations.

Sydney stands alone amongst Australian cities for convenience of position and natural advantages for external and internal trade, and the progress it has made in wealth and population has not been less than expectation warranted. At the census of 1861 the population of the whole metropolis was 95,596; ten years later it had risen to 136,483; while at the census of 1881 the number had reached 224,211; and at the census of 1891, 383,386. The growth of the city and suburbs and of the country districts may be traced in the following table, showing the estimated population on the 31st December of each year:—

Year.	Metropolitan.			Country.	New South Wales.		
	City.	Suburbs.	Total.		Males.	Females.	Total.
1870	75,493	59,085	134,578	364,081	272,543	226,116	498,659
1875	85,267	78,808	164,075	430,222	323,080	271,217	594,297
1880	99,683	124,203	223,886	524,064	409,224	338,726	747,950
1885	122,910	169,640	292,550	657,020	523,030	426,540	949,570
1890	111,980	268,060	380,040	741,820	609,650	512,210	1,121,860
1891	109,090	290,180	399,270	766,030	630,870	534,430	1,165,300
1892	106,380	305,330	411,710	785,940	646,540	551,110	1,197,650
1893	105,890	315,140	421,030	802,340	658,990	564,380	1,223,370
1894	103,870	319,730	423,600	827,850	672,950	578,500	1,251,450
1895	100,000	308,500	408,500	869,370	685,160	592,710	1,277,870
1896	96,330	313,670	410,000	887,640	695,150	602,490	1,297,640

The increase of population during the twenty years which closed with 1896 has been 140·45 per cent. in the metropolis, and 100·07 per cent. in the country districts. The population of the whole colony has more than doubled itself during this period, the total for 1896 showing an increase of 111·28 per cent. on the number in 1876.

The incorporated area in the metropolitan district is about 141 square miles, or 90,230 acres, so that the average density of population at the end of the year was 4·54 persons per acre, some of the more immediate suburbs being more densely populated than the city itself. The area of land permanently dedicated for public recreation in the metropolis is 3,053 acres (including the Centennial Park, the area of which is about 530 acres), equal to nearly one-twentieth of the total extent of the district, which must certainly be looked upon as a very liberal provision for the maintenance of public health. This is quite apart from the National Park, an area of 36,320 acres, which is within an hour's journey by train of the city; and of the Ku-ring-gai Chase, 35,300 acres in extent, which has recently been reserved for public recreation in the valley of the Hawkesbury. The area of Melbourne and suburbs is 163,942 acres, or about 256 square miles, and the population at the end of the year 1896 was 451,110; this shows a density of population of 2·74 persons to the acre. The area reserved as public recreation grounds within the boundary of Melbourne and suburbs is 5,329 acres.

The suburbs of Sydney comprise forty distinct municipalities, the population of which, at the date of the census of 1891 and at the end of 1896, will be found below:—

Municipality.	Population 5th April, 1891.	Population 31st Dec., 1896.	Municipality.	Population 5th April, 1891.	Population 31st Dec., 1896.
Alexandria	7,505	7,870	Leichhardt	*12,092	13,460
Annandale	4,975	7,430	Manly	3,236	3,750
Ashfield	11,697	12,650	Marrickville	13,507	16,500
Balmain	23,475	28,000	Marsfield	525	670
Botany	2,060	2,460	Mosman	1,460	2,400
Botany, North	2,407	2,990	Newtown	17,870	19,940
Burwood	6,227	6,300	North Sydney	*15,646	18,180
Camperdown	6,658	7,000	Paddington	18,392	19,000
Canterbury	2,426	3,350	Petersham	10,369	12,500
Concord	2,107	2,300	Randwick	6,236	7,600
Darlington	3,465	3,500	Redfern	21,322	23,020
Drummoyne	1,451	2,100	Rockdale	4,908	6,400
Enfield	2,050	2,230	Ryde	*1,800	2,330
Erskineville	5,275	5,490	St. Peter's	4,860	5,500
Five Dock	1,250	1,400	Strathfield	1,820	2,600
Glebe	17,075	16,680	Vaucluse	870	1,000
Hunter's Hill	3,633	4,000	Waterloo	8,701	8,530
Hurstville	3,175	5,330	Waverley	8,842	10,500
Kogarah	2,328	3,190	Willoughby	*2,886	3,700
Lane Cove	925	1,200	Woollahra	*9,153	10,600

* Within present limits.

At the beginning of the year 1897 there were 142 boroughs and municipal districts outside the metropolis. A statement of these ipalities, with the most recent estimates of population will be found :—

ountry cipalities.	Population.	Country Municipalities.	Population.	Country Municipalities.	Population.
en	720	Grafton, South	1,400	Orange, East	2,250
town	2,180	Granville	4,800	Parkes	3,200
	5,650	Grenfell	720	Parramatta	12,500
le..	4,700	Greta	1,280	Peak Hill	1,100
n	2,400	Gulgong	2,000	Penrith	4,570
	1,350	Gundagai	1,000	Picton	1,130
ald	720	Gunnedah	1,200	Plattsburg	3,300
own	1,000	Hamilton	5,200	Port Macquarie	980
st	9,200	Hay	3,250	Prospect and	
	2,300	Hill End	910	Sherwood	2,550
	2,300	Hillston	750	Queanbeyan	1,200
a	800	Illawarra, Central	3,300	Quirindi	1,250
y	1,200	,, North.	2,400	Raymond Terrace	900
la	1,020	Ingleburn	550	Richmond	1,370
	3,400	Inverell	3,250	Rookwood	2,350
	2,100	Jamberoo	1,340	Scone	1,200
ood	1,500	Jerilderie	790	Shellharbour	1,650
Hill	18,580	Junee	2,200	Shoalhaven, South	920
ton Vale	400	Katoomba	1,500	Silverton	550
ra	750	Kempsey	1,960	Singleton	2,000
atta and		Kiama	2,300	,, South	800
ey Vale	950	Lambton	3,500	Smithfield and	
n	1,700	,, New	1,570	Fairfield	1,500
elltown	2,400	Lismore	3,300	St. Mary's	2,000
r	650	Lithgow	3,500	Stockton	2,220
gton	2,120	Liverpool	3,200	Tamworth	5,400
	2,300	Maclean	950	Taree	730
eagh	1,400	Maitland, East	3,000	Temora	1,800
	2,000	,, West	7,600	Tenterfield	2,500
olin	850	Merewether	4,420	Tumut	1,300
	2,000	Mittagong	1,100	Ulladulla	1,370
able	1,100	Moama	860	Ulmarra	1,400
undra	2,920	Molong	1,200	Uralla	610
	650	Moree	1,700	Wagga Wagga	4,600
	1,750	Morpeth	1,100	Walcha	1,500
	600	Moruya	1,000	Wallendbeen	1,500
ong	2,300	Moss Vale	1,500	Wallsend	3,670
uin	2,930	Mudgee	2,500	Waratah	2,530
	3,450	Mulgoa	500	Warren	1,330
s	900	Murrumburrah	1,500	Wellington	1,520
g	1,100	Murrurundi	1,150	Wentworth	720
gton and		Musclebrook	1,500	Wickham	5,650
lmere	640	Narrabri	2,450	Wilcannia	1,040
	3,700	,, West	750	Windsor	2,200
gong	750	Narrandera	2,000	Wingham	570
nes	3,200	Newcastle	14,800	Wollongong	3,100
l	650	Nowra	2,150	Yass	1,700
rn	12,300	Nyngan	1,200	Young	3,000
n	4,600	Orange	3,600		

The great bulk of the population dwells along the seaboard. Outside the metropolis the most thickly peopled districts are the fertile valleys of the rivers. Amongst these, in point of population, the Hunter River valley, with its large agricultural and mining industries, stands first. The Illawarra district, rich in coal and pasture, comes next; then the maize and sugar-growing country of the Clarence and the Richmond. The settlement of population originally followed the main roads of the colony, and is now drawn to the great trunk lines of railway, which have almost superseded them.

NATURALISATION.

The law relating to the naturalisation of foreigners in New South Wales is mainly contained in two statutes. One of these is the Denization Act of 1828, 9 George IV, No. 6. This Act enables the Governor or Acting Governor to grant letters of denization to such foreigners as may arrive in the colony with a recommendation to that effect from the Secretary of State for the Colonies, these letters of denization entitling the holder to all the rights, privileges, and advantages in the colony which a British-born citizen may claim. Another Act which was passed to deal with naturalisation was 11 Victoria No. 39, which was amended by 17 Victoria No. 8, and repealed in 1876 in favour of an Act now in force, which is known as the Naturalisation Act of New South Wales, 39 Victoria, No. 19. This measure was passed in 1875, and assented to in 1876, having been reserved for the Queen's pleasure. The Act provides that an alien in New South Wales may hold and acquire real and personal property, but shall not be qualified for any office nor enjoy either a municipal or parliamentary franchise; shall not be qualified to be the owner of a British ship; and shall not have any rights and privileges except such as are expressly conferred upon him. After a residence in the colony of not less than five years a foreigner may apply for letters of naturalisation, which the Governor may or may not grant, in his option. After letters of naturalisation have been received, and the oath of allegiance has been taken, the holder becomes entitled to all the privileges which are conferred by British birth. Under a special enactment the naturalisation of Chinese is no longer permitted; and it was proposed to extend this provision to other coloured races by the "Coloured Races Restriction and Regulation Act, 1896," from which the Royal assent was withheld. Certificates of naturalisation granted in other colonies do not confer the right of British citizenship in New South Wales.

There were 184 foreigners naturalised in this colony during 1896. Germans have availed themselves most largely of the privileges of naturalisation, the number of certificates issued to them amounting to upwards of one half of the total number granted since 1849. The

able shows the native countries of those colonists who obtained
s of naturalisation from 1849 to 1896 :—

untries.	1849 to 1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	Total.
....	74	3	3	6	3	10	4	10	4	8	6	131
....	15	...	...	...	...	...	2	1	...	...	1	19
....	190	19	10	15	9	21	11	22	26	16	10	349
....	184	9	7	9	6	9	4	8	16	9	1	262
....	2,729	48	32	58	34	55	54	78	89	62	90	3,329
....	22	3	2	4	...	2	...	1	...	...	...	34
....	53	3	1	2	3	2	1	1	...	2	2	70
....	104	6	6	5	5	8	13	...	6	2	8	163
....	53	5	9	8	3	14	8	14	22	11	7	154
....	27	...	3	2	...	1	...	2	2	...	...	37
....	55	6	10	6	5	18	9	35	18	26	13	201
....	13	...	1	...	1	1	...	...	1	...	1	18
....	173	13	16	13	18	41	13	40	31	20	23	401
nd	124	1	1	3	5	3	3	1	5	3	3	152
tates	100	...	...	...	...	1	1	2	4	1	1	110
fied	13	1	...	3	1	...	...	...	1	...	...	19
....	907	1	...	...	...	...	...	...	...	...	...	908
nalities —												
islands ...	18	...	...	...	...	1	1	...	1	2	...	23
fied	82	1	4	3	6	6	19	6	8	8	18	161
....	4,936	119	105	137	99	193	143	221	234	170	184	6,541

ons naturalised during 1896, there were 3 bakers, 1 blacksmith,
nts, 5 carpenters, 3 clerks, 4 dealers, 3 engineers, 38 farmers,
s, 5 hawkers, 1 hospital attendant, 2 jewellers, 23 labourers,
victuallers, 10 mariners, 5 merchants, 8 miners, 14 store-
tailors, 1 teacher, 1 wharf labourer, and 46 others.

CHINESE POPULATION.

nimity with which the Australasian colonies have passed laws
the immigration of Chinese may be taken as some evidence
sirability of that race as colonists. At the Census of 1861 there
ew South Wales 12,988 Chinese. In November of that year
£10 per head was imposed upon Chinese male immigrants.
nued until the month of November, 1867 ; and when the
s taken in 1871 the number of Chinese in the colony was
ave fallen to 7,220. In 1881 the number had risen to 10,205,
145 at the end of 1888. Since that time, however, the depar-
been numerous, and only 14,156 Chinese were enumerated in

April, 1891. For many years New South Wales offered little inducement to the Chinese as a place of settlement, the superior attractiveness of Victoria and other colonies as gold producers claiming their attention. At the rush to Lambing Flat in 1860, however, large numbers of Chinese came across the border and established themselves in this colony, their strength being constantly recruited by fresh arrivals from China; but these Chinese did not remain in New South Wales, for, as already shown, at the Census of 1871 there were 5,768 less than ten years previously.

The numbers of Chinese who entered and left New South Wales during each year since 1875 will be found in the following table:—

Year.	Arrivals.	Departures.	Year.	Arrivals.	Departures.
1875	625	1,209	1886	3,092	1,883
1876	696	940	1887	4,436	2,773
1877	884	490	1888	1,848	1,562
1878	2,485	1,560	1889	7	941
1879	1,979	557	1890	15	637
1880	2,942	876	1891	17	581
1881	4,465	929	1892	21	755
1882	1,007	884	1893	34	558
1883	1,936	1,402	1894	76	627
1884	2,191	1,038	1895	94	413
1885	2,929	1,726	1896	99	450

It will be seen that 1878 and following years were marked by a large increase in the arrivals from China. The influx appeared in 1881 sufficiently formidable to demand the interference of the Legislature. Accordingly, the "Influx of Chinese Restriction Act" was passed, again imposing a poll-tax of £10, with the result that the subsequent year was marked by a decrease in the arrivals to the extent of 3,458. After that time, however, there was a steady increase until 1888, when the powers of the Legislature were again invoked to restrict the immigration of these undesirable colonists. This legislation was partly the outcome of a conference of delegates from the Australasian colonies which was held in Sydney in that year, and which was convened after considerable discussion had taken place upon this growing public danger. Although it was not deemed advisable to altogether prohibit the immigration of Chinese aliens, yet it was considered necessary that the numbers privileged to land should be so limited that an effective check would be given to the immigration of this race. The New South Wales Parliament was already considering a Bill when the conference was summoned, and ultimately the new enactment came into force in the colony on the 11th July, 1888. By this measure vessels are prohibited from carrying to the colony more than one Chinese passenger to every 300 tons; and Chinese landing are required to pay a poll-tax of £100; they are not to engage in mining, without express authority under the hand and seal of the Minister of Mines; nor, as before explained, are they permitted to take advantage of the Naturalisation Act. Chinese who by birth are British subjects do not come within the provisions of this restrictive legislation: but the Coloured Races Restriction Bill, from which the Royal assent was withheld, proposed to place them upon the same footing as their less fortunate brethren. The penalty for a breach of the Chinese Restriction Act is £500. The Act has operated to the entire cessation of Chinese immigration. How greatly the number of arrivals of Chinese has fallen off since 1888 will be seen from the following table, which also shows the number who have paid the poll-tax during the years enumerated:—

Year.	Chinese arriving.	Chinese paying Poll-tax.	Year.	Chinese arriving.	Chinese paying Poll-tax.
1885	2,929	1,060	1891	17	1
1886	3,092	1,284	1892	21	2
1887	4,436	1,798	1893	34	7
1888	1,848	462	1894	76	3
1889	7	1	1895	94	2
1890	15	3	1896	99	2

At the Census of 1891, there were 42,521 Chinese recorded in the Australasian colonies, as shown in the table following. When the Census of 1881 was taken the total number in the colonies was set down as 43,706, so that there was a net decrease at the end of the ten years of 1,185:—

Colony.	Number.
New South Wales	14,156
Victoria	9,377
Queensland	8,574
South Australia	3,997
Western Australia	917
Tasmania	1,056
New Zealand	4,444
Australasia	42,521

In the colony of New Zealand a Census is taken every five years. At the Census of 1896 the number of Chinese was 3,711.

Information showing the number of marriages of Chinamen resident in New South Wales is not available annually, nor is it possible to ascertain the nationalities of the women who form matrimonial unions with the Chinese. The last Census returns, however, showed that of the 286 Chinese then in the colony whose wives were with them, 129 were married to natives of New South Wales, 29 to Victorians, 7 to wives born in Queensland, 1 to a South Australian, 4 to Tasmanians, 1 to a native of New Zealand, and 4 to wives born in Australia, the particular colony not being stated. Twenty-eight Chinese were married to English women, 3 to Scotch women, 16 to Irish women, 1 to a German, and 1 to a French woman. In 60 cases the wife was a native of the Chinese Empire as well as the husband, while in the remaining 2 cases the birthplace of the wife was not stated.

PREVENTION OF INFLUX OF COLOURED RACES.

In 1896 the question of the influx of the alien races was deemed by Parliament to be sufficiently grave to justify it in extending the provisions of the Chinese Restriction and Regulation Act of 1888 so as to exclude from the colony the coloured races of Asia and Africa and the coloured inhabitants of the islands in the Pacific and Indian Oceans. An important feature of the Bill was that it proposed to restrict the immigration of persons belonging to the inferior races whether they were or were not British subjects by birth, and the existing Act was so amended that Chinese born in British territory were shut out from free entry into the colony as well as the subjects of the Chinese Emperor. The Australian aborigines and the Maoris of New Zealand were not affected by the Bill; and all persons partially of European descent were likewise unrestricted in their movements. Provision was made to allow of the admission into the colony of accredited representatives of the States whose subjects were excluded under the Bill, and of missionaries, tourists, and persons travelling with the object of prosecuting scientific researches. Also, division of a family was prevented by treating wives as of the nationality of their husbands. The new measure, which was termed "The Coloured Races Restriction and Regulation Act, 1896," was reserved for the assent of Her Majesty, but this was withheld, and it was, therefore proposed towards the close of 1897, to introduce new bills to effect the same object in another way.

ABORIGINES.

This name, signifying "from the origin," was given to the earliest known inhabitants of Italy, but it is now applied to the original or primitive inhabitants of any country. As the history of the native race in these colonies is so entwined with the progress of the British people in Australia, a few words concerning them may not be out of place. The aborigines of Australia form a distinct race, and it may be presumed that the whole of them throughout the continent sprang from the same stock, although it is remarkable that their languages differ so greatly that tribes within short distances are often quite unable to understand each other, and in fact almost every large community of natives has its own peculiar dialect. It is difficult to form a correct estimate of the numbers of the aborigines; but while there is reason to believe that some generations ago they were very numerous, there is ample evidence of late years that in many places they are decreasing, and they may now be counted by fives where they were formerly counted by hundreds. In Tasmania they have disappeared altogether, the last of the tribe in that colony having died in 1876.

It is recorded that Governor Phillip estimated the aboriginal population about the close of the last century at one million; the number between Broken Bay and Botany Bay appearing to have been about 3,000. It is impossible to say how far this estimate was in accordance with fact; for although at the time it did not probably seem an exaggerated conjecture in the face of so large a number as 3,000 having been found within the small area between the bays above mentioned, yet considering how small a portion of the territory was then explored by the early settlers, the statement must be accepted as what it professes to be, namely, an estimate at a time when the data to hand were very limited. At the Census of 1891 the aborigines in Australia, exclusive of Queensland (where they were not even estimated), were said to number 38,879, distributed as follows:—

Colony.	Males.	Females.	Total.
New South Wales	4,559	3,721	8,280
Victoria	325	240	565
South Australia	14,510	9,279	23,789
Western Australia	3,516	2,729	6,245
Total	22,910	15,969	38,879

The original inhabitants of New Zealand, or Maoris, as they are called, are quite a different race. They are gifted with a considerable amount of intelligence, are quick at imitation, and brave even to rashness; on the other hand, they are avaricious, and oft times ferocious. According to the Census of 1881, they numbered 44,097. Like the Australian aborigines, they appear to be decreasing in number, the Census of 1886 enumerating only 41,432; and although in 1891 the total was found to be 41,993, in 1896 it was but 39,854. It is believed that at the time the colonists first landed the number of Maoris in the country was fully 120,000.

According to the Census of 1891, there were 8,280 aborigines in New South Wales, this total including half-castes, who numbered 3,183. The number of aborigines under the control of the Aborigines Protection Board at the end of the year 1896 was 6,984, of whom 3,503 were full-bloods and 3,481 half-castes. This shows a decrease on the return for the end of 1895 of 157 full-bloods and an increase of 95 half-castes. The number of births reported during 1896 was 232 (153 of the children being half-castes), and the number of deaths, 201 (61 half-castes). There are three mission stations. These establishments, when first formed, were little more than camping grounds for the aborigines, where the blacks worked for their rations, and elementary instruction was imparted to the children; but now they have developed into settlements, with greatly improved huts for married couples, and adequate accommodation for teaching, duly qualified instructors having been appointed by the Department of Public Instruction. At the end of 1896 there were 244 full-blood aborigines and half-castes living at the mission stations, and on the same date 690 aboriginal children were receiving instruction in schools. During the year a sum of £17,312 was expended on the aborigines. There are altogether in the colony 110 reserves for the aborigines, the total area being 25,338 acres. At the Census of 1881, only 1,673 aborigines were enumerated; the returns for 1891 must not, however, be taken as showing an increase, but as proving that at the previous Census the aboriginals passed over as being in a wild state far outnumbered those within the bounds of civilisation.

It has been the misfortune of the aboriginal of Australia, as it was of the Carribee, the North American Indian, and the Hottentot, to be found in the way of European colonisation; and the black has not seen the white man take possession of his territory without many an attempt, by deeds of cunning and of blood, to stop the invasion and to avenge the injury. It would be easy to gather from the records of British colonisation in Australia many instances of horrible crimes committed by the aborigines, who are, in fact, partakers of the worst passions of human nature. But it must not be forgotten that, amongst the people of British origin who settled upon the land formerly occupied by the blacks alone, were many whose crimes against the aborigines at least equalled in atrocity any committed by that unfortunate race. Cunning and ferocity were the natural concomitants of such a struggle; and the remembrance of what cunning and ferocity have done tends to make the colonists slow to recognise any characteristics of an opposite kind in the blacks. There is, however, evidence from the songs and cherished traditions of the aborigines,* that they are by no means destitute of some qualities in which civilised men glory—such as the power of inventing tragic and sarcastic fiction, the thirst for religious mystery, stoical contempt of pain, and reverence for departed friends and ancestors. The manner in which they have displayed these characteristics presents such a strange mixture of wisdom and folly, of elevating and degrading thoughts, of interesting and repulsive traditions, of pathetic and grotesque observances, that in order to account for the apparent contradictions recourse must be had to the supposition that this race has descended from an ancient and higher civilisation, of which its people have retained some memorials.

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* *Vide* Kamilaroi and other Australian Languages, by Rev. W. Ridley, M.A.

VITAL STATISTICS.

CONJUGAL CONDITION OF THE PEOPLE.

HEN the Census enumeration was made in New South Wales on the 5th April, 1891, information was obtained respecting the ıgal condition of the people. Exclusive of 8,280 aborigines, the lation of the colony was ascertained to be 1,123,954. Of this ber, there were 424,286 unmarried males and 324,378 unmarried les, including children who had not reached a marriageable age; 05 widowers and 25,799 widows; 178 divorced men and 126 rced women; and 166,634 husbands and 165,648 wives. The ber of married couples living together was 141,656, so that it will een that on the night on which the Census was taken 24,978 ied men were not residing with their wives, and 23,992 married en not residing with their husbands. These married people who not living with their husbands and wives included not only those ns who had obtained a judicial separation or otherwise had come n agreement to live apart in consequence of domestic infelicity, of course, such as were unavoidably separated through the exigen- of business affairs or had temporarily parted for the purpose of ing a change in the interest of health or enjoyment. It is obvious the conditions of settlement in New South Wales are such that y men must of necessity have been absent from their wives at the of the Census; but after due allowance has been made on this , it must be confessed that there are many wives who have been rted by, or are permanently separated from, their husbands. Indeed, is evidence to warrant the supposition that the number of such en is not less than 11,000, and if to these be added the number of ws a total of 37,000 widowed and deserted women is obtained out 1,500 females who had taken marriage vows.

iere are, of course, no means of readily identifying a married woman g in one part of the colony as the wife of a man residing in another, iat for the purpose of instituting a comparison between the ages, nality, and religions of married people, only the 141,656 couples g together at the time of the Census can be taken. It is interest- to note, however, that some of the married people who were not g together were decidedly young. Two of the husbands were boys 6; six were only 17 years of age; thirteen were one year older; ty-one were 19 years of age; and fifty-nine were only 20 years old.

On the other hand, four of the wives were girls of 15; eighteen were one year older; forty-seven were 17 years of age; and over one hundred were but 18 years old. The ages of the married couples living together are given below. The total of 141,656 is inclusive of forty-six cases in which the husband's age was not stated, 29 cases in which the wife's age was not stated, and forty-six cases in which neither the age of the husband nor that of the wife was given:—

Ages of Husbands.	Ages of Wives.											Husbands.
	Under 20	20–24	25–29	30–34	35–39	40–44	45–49	50–59	60–69	70 and upwards	Not stated	
Under 20	53	23	4	..	..	..	..	..	..	..	..	8
20–24	1,101	3,800	798	79	16	8	1	..	..	..	1	5,8
25–29	956	8,164	9,349	1,647	231	45	12	6	1	..	7	20,4
30–34	279	3,908	10,710	8,997	1,590	251	50	20	2	..	6	25,3
35–39	77	1,090	4,661	8,601	6,782	1,261	274	70	14	1	7	22,6
40–44	18	305	1,406	3,911	5,841	4,886	935	243	11	4	7	17,5
45–49	8	106	531	1,626	3,214	4,940	4,143	958	35	3	6	15,5
50–59	6	82	268	791	1,587	3,353	5,781	8,168	707	38	8	20,7
60–69	1	12	39	78	187	458	844	4,120	3,085	311	2	9,1
70 and upwards..	1	..	8	10	23	50	90	652	1,415	1,314	..	3,5
Not stated	2	5	5	7	2	3	..	5	..	..	46	75
Wives	2,502	17,495	27,779	25,747	19,473	15,255	12,130	14,242	5,270	1,671	92	141,6

While the majority of marriages had evidently been entered into by persons of suitable ages, in some cases there was a great disparity between the ages of the contracting parties, and the figures also disclose not a few very youthful unions. In the table given all married people under 20 years of age have been classed in one group; but the details show that a child of 14 years was married to a man over 21 years of age; two girls of 15, to men over 30 years of age; and two girls of 16, to men over 40 years of age. In three cases of wives aged 17 years still greater disparities were observable, in two of the cases the husband being over 50 years, and in the third case over 70 years of age; while it was also disclosed that three girls of 19 were married to men over 50 years of age, a woman under 30 to a man over 80, and a woman under 40 to a man over 85 years old. On the other hand, in several cases the wife was a great deal older than the husband. For instance, two women over 75 years of age were mated with men under 45; a woman over 70 was married to a man under 40; and another, over 65, to a man not yet 30 years of age. Three husbands were set down as over 100 years of age, and there were five wives over 95 years of age. The youngest husbands were three of 17 years, each of whom was married to a girl slightly older than himself; in fact, the united ages of the three couples only amounted to 108. The youngest wife was 14 years; there were twelve wives of 15 years of age; and ninety-two of 16 years of age.

The average age of husbands was 41·43 years, and that of wives 36·96 years, showing a difference of four years and a half in favour of

s. The average age of widows was 55 years. There were 8 under 20 years of age; 4,091 between 20 and 40 years of age; etween 40 and 60 years of age; 10,227 over 60 years of age; hose ages were not stated.

BIRTHPLACES OF MARRIED PEOPLE.

1893 and 1894 editions of this book the nationalities of the married couples who dwelt together at the Census of 1891 are It is there shown that 51,492 husbands were New South n, of whom 41,403 had married natives of the colony; 3,714, or Welsh women; 2,146, Irish women; and 1,698, natives of bouring colony of Victoria. The wives born in New South mbered 69,707. In addition to the 41,403 who had married f the colony, 13,670 had married Englishmen or Welshmen; ishmen; 2,784, Scotsmen; and 2,334, natives of Victoria. In th Wales there were 5,134 husbands and 6,634 wives who Victoria as their birthplace, but in only 1,623 cases did both and wife hail from that colony. The number of wives the other Australasian provinces was in every case greater number of husbands. This was especially the case with nd, the northern colony furnishing 1,155 wives and only ands. In only 60 cases, however, did both husband and wife Queensland.

RELIGIONS OF MARRIED PEOPLE.

llowing table shows the religious professions of the 141,656 couples who were living together when the Census was taken:—

Husbands.	Religions of Wives.										
	Church of England.	Roman Catholic.	Presbyterian.	Wesleyan and other Methodist.	Baptist.	Congregationalist.	Lutheran.	Salvation Army.	Other Christian Sects.	Jews.	Other Religions.
ngland ..	55,391	5,832	1,501	1,159	204	202	31	131	73	34	92
olic	3,028	26,253	361	196	17	37	35	13	75	9	27
....	1,978	853	11,247	296	62	60	8	24	28	1	24
nd other	954	304	277	13,263	88	44	9	78	21	..	26
....	230	57	58	93	1,481	34	..	11	16	1	3
nalist	277	89	57	79	43	2,957	2	6	8	..	6
....	453	278	103	76	12	26	666	6	15	..	9
rmy	95	25	14	87	3	12	2	1,154	3	..	6
ian Sects..	290	148	56	82	14	25	8	11	1,370	1	26
....	111	28	11	8	..	..	1	1	5	675	2
ons	1,617	770	299	412	106	113	15	47	87	11	2,407

The total number of husbands and of wives belonging to each of the principal denominations, with the number of cases in which both parties were adherents to the same Church, will be found below :—

Denominations.	Husbands with Wives at home at time of Census.	Wives with Husbands at home at time of Census.	Married Couples both of the same Denomination.
Church of England…………………	64,650	64,424	55,391
Roman Catholic…………………	30,051	34,637	26,253
Presbyterian …………………	14,581	13,984	11,247
Wesleyan and other Methodists…	15,064	15,751	13,263
Baptist…………………	1,984	2,030	1,481
Congregational …………………	3,524	3,510	2,957
Lutheran…………………	1,644	777	666
Salvation Army…………………	1,401	1,482	1,154
Other Christian Sects …………	2,031	1,701	1,370
Jews…………………	842	732	675
Other Religions …………………	5,884	2,628	2,407

No very remarkable differences are disclosed by these tables ; indeed, in point of religious opinions, as well as in nationality, the married couples were fairly well matched. Of 64,650 husbands and 64,424 wives belonging to the Church of England, there were 55,391 couples who both adhered to that denomination ; and of 30,051 husbands and 34,637 wives attached to the Church of Rome, there were 26,253 cases in which both parties were Roman Catholic. There were, therefore, only 9,259 male and 9,033 female members of the Church of England who had married out of their own communion ; while among the Roman Catholics only 3,798 males and 8,384 females had contracted mixed marriages. Similar consistency will be noticed in respect to the other principal denominations. Among the Presbyterians there were 11,247 couples who both belonged to that Church, while 3,334 males and 2,737 females had married persons of other religious bodies. Only 1,801 male and 2,488 female Methodists had married persons of other denominations, although there were 13,263 cases in which both husband and wife were Methodists.

MARRIAGE LAWS.

The law relating to marriages is contained in four Acts of Parliament, the principal of which is Act 19 Vic. No. 30, "An Act to Amend and Consolidate the Laws affecting the solemnization of Marriage." This Act determines that the marriage ceremony is to be performed by an officiating minister duly registered for that purpose ; but it is provided that, in cases where the contracting parties conscientiously object to a religious ceremony, or where the services of a minister are not available, they may sign a declaration to that effect, and be married by a District

Registrar. The Act further provides for the signing of a declaration by both parties to the effect that they believe there is no impediment in the way of or lawful objection to their marriage on account of relationship, former marriage, want of consent in case of minors, or on other grounds. The written consent of the father must be produced by a minor, or should the father not reside in New South Wales, of the mother or guardian, and in the absence of these, of a magistrate specially appointed "to give consent to the marriage of minors." The marriage ceremony is to be celebrated in the presence of two witnesses. Penalties for wilfully marrying minors, or for aiding and abetting in doing so, are imposed, the maximum being a fine of £500, or imprisonment for five years. Forgery in connection with forms of consent, etc., is punishable with five years' hard labour or hard labour on the roads.

Act 19 Vic. No. 34, "An Act for Registering Births, Deaths, and Marriages," provides for the registration of officiating ministers, and for the transmission by them to the District Registrars of copies of certificates. District Registrars are to forward these copies to the General Registry Office, where they are indexed for future reference. Act 42 Vic. No. 5, the "Clergy Returns Transfer Act," provided for the handing over to the General Registry Office of registers previously kept by certain of the clergy. Act 55 Vic. No. 34, the "Marriages Validation and Marriage Law Amendment Act," validated marriages, celebrated since the passing of Act 19 Vic. No. 30, in which the required declaration was not signed, and provided that henceforth the declaration should be endorsed on the back of the marriage certificate. Omission to sign it is made punishable as a misdemeanour.

MARRIAGES.

The greatest number of marriages registered in New South Wales during any one year down to 1895 was in 1891, when it reached 8,457. Before the latter year the increase in number had been remarkably steady, very few checks being experienced; indeed, during the eleven years extending from 1875 to 1886 the increase was uninterrupted. During 1892, 1893, and 1894, however, the number of marriages, despite the growth of population, steadily declined; but 1895 saw an increase of 364 over the number celebrated in the previous year, and this may be taken as evidence of the feeling in the community that the clouds of depression were then lifting from the colony. An examination of the annual marriage rates shows, however, that there has been a settled tendency to fall since 1883, when the rate stood at 8·83 per 1,000 of mean population. In 1894 it was as low as 6·20, and in 1895 recovered to the extent of 0·15 per 1,000 inhabitants. These rates, as will be seen from the table given below, were the lowest experienced during the last twenty years. The improvement manifested in 1895 was continued in 1896, when the rate reached the point of 6·60 per

1,000, and the number of marriages, 8,495, was the highest yet recorded :—

Year.	Marriages registered.	Per 1,000 of mean population.	Year.	Marriages registered.	Per 1,000 of mean population.
1877	4,994	7·94	1888	7,844	7·57
1878	5,317	8·08	1889	7,530	7·06
1879	5,391	7·80	1890	7,876	7·15
1880	5,572	7·65	1891	8,457	7·39
1881	6,284	8·21	1892	8,022	6·79
1882	6,948	8·70	1893	7,749	6·40
1883	7,405	8·83	1894	7,666	6·20
1884	7,482	8·47	1895	8,030	6·35
1885	7,618	8·22	1896	8,495	6·60
1886	7,811	8·06			
1887	7,590	7·55	Mean for 20 years		7·42

The year 1883 was distinguished by a high marriage-rate not only in the case of New South Wales, but in most of the other Australasian colonies as well. Since that time the rates then recorded have not been exceeded in Queensland, New South Wales, South Australia, and Tasmania; but, on the contrary, with the exception of an individual year here and there, have all shown a steady tendency to fall. As in the other countries of the world, the marriage-rate in Australasia is an index to the state of general prosperity, evincing, however, an eagerness to anticipate an improvement in industrial conditions, and a reluctance to accept the evidences of the approach of times of depression. Probably the year 1883 marked the end of a long period of lavish public expenditure, reducing the number of those who were in a position to take upon their shoulders the responsibilities of married life—the inability to enter into the married state being confirmed later on by the bad years of which the colonies had experience. In addition to the four provinces mentioned, New Zealand also had its highest marriage rate of recent years about the same time, namely, in 1884, since which year the rate has likewise steadily fallen. In Western Australia the rate has fluctuated considerably. So recently as 1891 it was higher than in any year since 1868; but the great influx of men who have left their women folk in the other colonies has in this case doubtless been the cause of the reduction in the number of marriages proportionately to population during the last few years.

For the year 1896 the average marriage-rate per 1,000 of population in the whole of Australasia was 6·54. The rate of New South Wales was, as already stated, 6·60; that of Victoria, was 6·48; of Queensland, 6·05; of South Australia, 6·09; of Western Australia, 8·82; of Tasmania, 5·91; and of New Zealand, 6·86. The average annual rate for Australasia during the last ten years was 6·79 per 1,000 of population The colony with the smallest average rate during the decade is New Zealand; and Western Australia has the highest average rate for the same time, Victoria coming next in order, although the rate of the latter colony would be exceeded by Queensland if a longer period were taken. Victoria owes her high rate to the comparatively large number of marriages celebrated in that colony during the five years from 1887 to 1891. From 1861 to 1886 the rate of New South Wales was consistently higher than that of the Southern colony. During the next five years, however, Victoria had the advantage, only to lose it in 1892, since which year New South Wales has again had the higher rate.

For the ten years ended 1896 the colonies which had a marriage-rate above the Australasian average were :—

Western Australia	7·39	per 1,000 of population.
Victoria	7·11	„ „
Queensland	7·07	„ „
New South Wales	6·87	„ „

Those which had a lower rate were :—

South Australia	6·44	„ „
Tasmania	6·25	„ „
New Zealand	6·16	„ „

A comparison of the marriage-rates of various countries is apt to be misleading, on account of the different conditions of life prevailing therein. Thus, in comparing the Australian rate with the rates of foreign countries, it has to be borne in mind that, on the one hand, the superior condition of the working classes and the preponderance of unmarried adult males in the colonies favour a high marriage-rate ; while, on the other hand, the migratory habits of a large part of the male population often occasion a certain amount of extravagance and selfishness, and tend, therefore, to a diminution of the rate. The table given below shows the average marriage-rates of a number of European countries for the twenty years, 1871–90, and the annual rates for the years 1891, 1892, 1893, and 1894. The information is taken from the report of the Registrar-General of England :—

Country.	Average of 20 years, 1871–90.	1891.	1892.	1893.	1894.
United Kingdom	7·2	7·3	7·3	7·0	7·1
England and Wales	7·8	7·8	7·7	7·4	7·5
Scotland	7·0	7·0	7·1	6·6	6·7
Ireland	4·5	4·6	4·7	4·7	4·7
Denmark	7·6	6·8	6·8	7·0	6·9
Norway	6·9	6·6	6·4	6·4	6·4
Sweden	6·6	5·8	5·7	5·7	......
Austria	8·2	7·7	7·8	7·9	7·9
Hungary	9·6	8·6	9·2	9·3	......
Switzerland	7·4	7·1	7·4	7·4	7·4
German Empire	8·2	8·0	7·9	7·9	7·9
Prussia	8·4	8·2	8·1	8·1	8·1
Netherlands	7·6	7·1	7·2	7·3	7·2
Belgium	7·1	7·5	7·7	7·6	7·5
France	7·7	7·4	7·5	7·5	7·5
Italy	7·8	7·6	7·5	7·5	7·5

In 1895 the marriage-rate of England and Wales was 7·5 per thousand; of Scotland, 6·8 per thousand; and of Ireland 5·1; the general rate for the United Kingdom being 7·2 per thousand. It may be advisable to point out that the above figures show the ratio of marriages to population; to ascertain the ratio of persons married it is therefore necessary to double the figures in each case.

ILLITERACY DISPLAYED BY MARRIAGE REGISTERS.

The number of persons signing the marriage register with marks has steadily declined for many years past. In 1871 the proportion of signatures made with marks was 16·96 per cent. of the whole, while in 1896 the percentage had fallen to 2·19, the decrease in illiteracy being therefore highly satisfactory. As will be seen from the table appended, the greatest proportion of signatures affixed by means of marks has always been supplied by the country districts. In both the country and the metropolis, however, the number of persons signing with marks has steadily fallen, the percentage in 1896 being only 2·59 for the country and 1·67 for the metropolis, as compared with 18·92 and 13·50 respectively in 1871:—

Year.	Metropolis.	Country Districts.	New South Wales.	Year.	Metropolis.	Country Districts.	New South Wales.
1871	13·50	18·92	16·96	1892	2·35	3·63	3·06
1876	6·54	16·71	10·47	1893	1·50	2·67	2·16
1881	5·05	8·34	6·94	1894	1·26	2·43	1·90
1886	2·89	5·00	3·98	1895	1·61	2·49	2·09
1891	2·26	3·78	3·08	1896	1·67	2·59	2·19

The amount of illiteracy, as displayed by inability to sign the marriage register in the proper manner, was for many years greater amongst females than males. The returns show that such was the case in every year from 1871 until 1887. With the exception of 1894, however, the proportion of females signing with marks has been less than that of males during the last eight years. It would therefore appear that women are now quite on a par with men in the acquirement of the rudiments of education; and it may also be pointed out that many women refrain from signing their names in the marriage register, not from inability to write, but from sheer nervousness. In 1871 the number of women who were unable to sign their names amounted to nearly one-fifth of the whole number married; but the proportion had fallen to

2 per cent. in 1896. During the same period the male illiterates were reduced from the proportion of 14·5 per cent. to 2·3 per cent. :—

Year.	Males signing with marks, per thousand.	Females signing with marks, per thousand.	Year.	Males signing with marks, per thousand.	Females signing with marks, per thousand.
1871	145	194	1892	33	28
1876	96	114	1893	23	20
1881	55	84	1894	19	20
1886	38	42	1895	22	20
1891	32	29	1896	23	20

SOLEMNISATION OF MARRIAGES.

Of every hundred marriages celebrated in New South Wales, about ninety-six are solemnised by the clergy. The actual figures for 1896 show that during that year 8,136 marriages were solemnised by clergy and 359 witnessed by registrars, giving the proportions of 95·77 and 4·23 per cent. respectively of the total number of 8,495.

The Church of England celebrates the largest number of marriages, the Roman Catholic Church coming next; but in each case the proportion falls short of what might be anticipated from the strength of the Church as shown by the Census returns. This is noticeably the case with the Roman Catholic Church. The adherents to that denomination at the Census of 1891 formed 25·34 per cent. of the population, whereas the marriages solemnised according to its rites during the year 1896 formed only 18·28 per cent. of the whole number of marriages. To bring the number of Roman Catholic marriages up to the proper proportion they should be increased nearly 39 per cent. It is plain, therefore, that the adherents to this Church either do not marry within their own communion, or do not undertake the responsibilities of marriage to the same extent as other members of the community. The latter supposition is doubtless the correct explanation of the anomaly; for the adherents to the Roman Catholic Church are amongst the poorest in the colony, and want of means is, perhaps, the chief cause of the comparatively small number of their marriages, though it is undoubtedly true that what are termed "mixed" marriages are numerous.

The disparity between the number of marriages solemnised by the clergy of the Church of England and what might be expected from the numerical strength of the denomination is also very great. During the year 1896 there were celebrated 2,979 marriages according to the rites of this Church, being 35·07 per cent. of the total marriages, while the percentage of its adherents, as shown by the Census of 1891, was

44·42. A glance at the following table will show that the number of marriages celebrated during 1896 by ministers of other denominations, notably those of the Presbyterian, Methodist, Congregational, and Baptist Churches, far exceeded their apparent due proportions :—

Denomination.	No. of Marriages.	Percentage of total Marriages.	Percentage of adherents to total population, Census 1891.
Church of England	2,979	35·07	44·42
Roman Catholic	1,553	18·28	25·34
Presbyterian	964	11·35	9·66
Wesleyan and Primitive Methodist	1,143	13·46	9·69
Congregational	295	3·47	2·13
Baptist	159	1·87	1·16
Hebrew	30	0·35	0·48
Other Denominations	1,013	11·92	7·12
Registrars' Offices	359	4·23	....

The following table shows the number of marriages registered by the principal denominations during the last eight years :—

Denomination.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.
Church of England	2,885	3,126	3,323	3,216	3,022	2,895	2,836	2,979
Presbyterian	979	965	1,142	1,055	983	1,042	918	964
Wesleyan Methodist	753	798	885	816	862	821	831	944
Primitive Methodist	271	256	282	241	218	187	204	199
United Methodist Free Church	....	12	36	29	30	20	23	19
Methodist Episcopal Church	....	....	....	....	....	....	272	466
Independent Methodist Church	....	....	....	....	....	....	124	....
Lay Methodist	....	....	....	....	8	14	25	14
Baptist	167	118	118	119	121	120	218	159
Independent Baptist	....	....	....	....	....	....	....	390
Independent, Congregationalist	546	540	500	456	386	351	313	295
German Evangelical, Lutheran	28	23	17	19	17	23	25	15
Bible Christian	....	....	18	13	11	17	27	17
Christian, Church of Christ	28	33	15	17	14	154	97	12
Catholic Apostolic Church	4	5	....	2	2	....	....	1
Society of Friends (Quakers)	1	....	1	1	....	....	....	1
Swedenborgian, New Church	4	1	....	1	....	....	....	1
Bethel Union	....	....	....	....	10	45	21	....
Gospel Temperance Church	....	....	....	....	....	....	56	2
Salvation Army	26	41	37	44	29	29	35	47
Unitarian	6	10	11	9	6	114	210	5
Other Sects	....	1	2	35	4	11	13	23
Roman Catholic	1,288	1,373	1,510	1,469	1,462	1,361	1,416	1,553
Hebrew	35	23	23	14	21	20	30	30
District Registrars	509	551	537	466	543	442	336	359
Total Marriages	7,530	7,876	8,457	8,022	7,749	7,666	8,030	8,495

During the last two or three years there have come into existence certain institutions, named "Matrimonial Agencies," which combine the easy formalities of a district registrar's office with the attendance of a clergyman. It is to the connection of certain clergymen with these institutions that the increase in the number of marriages performed according to the rites of some of the smaller denominations during the years 1894 to 1896 is due.

AGE AT MARRIAGE.

The New South Wales marriage registers give no information respecting the ages of bride and bridegroom at the time of marriage. Sufficient is known, however, to warrant the assumption that these ages correspond closely with those of persons married in Victoria, namely, 29·5 years for males and 25·1 years for females. An examination of the Victorian figures for recent years shows that in about 58 per cent. of marriages the husband is older than the wife; in about 33 per cent. the ages of both parties are nearly equal; and in the remaining 9 per cent. the wife is older than the husband. About 2·26 per cent. of bridegrooms are minors; 68·65 per cent. are between 21 and 30 years; 19·29 per cent. between 30 and 40; 5·73 per cent. between 40 and 50; and the remaining 4·07 per cent. over 50 years old. Of brides, 21·00 per cent. are found to be minors; 65·62 per cent. are between 21 and 30; 9·16 per cent. between 30 and 40; 2·93 per cent. between 40 and 50; and 1·29 per cent. over 50 years old.

From these figures it may be concluded that the marriage age of females in New South Wales is some years lower than that of males. At the Census of 1891, the average age of the married males in the colony was found to be 41·43 years, and that of the married females 36·96 years. This showed a difference of 4·47 years, which agrees with the estimated average age at marriage given above, and with the difference in the average ages of the parents of children born in the colony during the last three years, namely, 4·75 years.

A record is kept of the number of minors married in the colony. The following table gives the number of males and females under the age of 21 years who were married during the ten years 1887–96:—

Year.	Minors.		Percentage of—	
	Bridegrooms.	Brides.	Bridegrooms.	Brides.
1887	181	1,911	2·38	25·18
1888	195	2,002	2·48	25·52
1889	169	1,955	2·24	25·96
1890	149	1,931	1·89	24·52
1891	177	2,085	2·09	24·65
1892	177	1,889	2·21	23·55
1893	177	1,993	2·28	25·72
1894	167	1,905	2·18	24·85
1895	207	1,942	2·58	24·18
1896	212	2,065	2·50	24·31

During the year 1896 there were registered in New South Wales :—

Marriages between—

Bachelors and Spinsters	7,377
,, Widows	372
,, Divorced Women	53
Widowers and Spinsters	368
,, Widows	256
,, Divorced Women	15
Divorced Men and Spinsters	47
,, Widows	5
,, Divorced Women	2
Total	8,495

Similar information is available for the nine years extending from 1888 to 1896. Taking this period as a basis, it may be said that out of every 10,000 marriages celebrated in the colony, there will be between—

Bachelors and Spinsters	8,651
,, Widows	505
,, Divorced Women	36
Widowers and Spinsters	500
,, Widows	269
,, Divorced Women	9
Divorced Men and Spinsters	24
,, Widows	4
,, Divorced Women	2
Total	10,000

As very few marriages are contracted by males before the age of 21 or after that of 50, or by females before the age of 18 or after that of 45, for the purpose of ascertaining the probability of marriage the population of other ages than these may be omitted from consideration. The mean number of marriageable males during 1888–96 was 136,631, and of females, 85,737. These comprised 130,234 bachelors, 6,397 widowed and divorced males, 79,100 spinsters, and 6,637 widows and divorced females. From these figures it would appear that the annual marriage rate per thousand is, approximately, for bachelors, 56 ; for widowers and divorced men, 101 ; for spinsters, 92 ; and for widows and divorced women, 99. As regards the probability of marriage, therefore, the widower holds the highest place and the bachelor the lowest, while the widow has a slight advantage over the spinster.

DURATION OF LIFE AFTER MARRIAGE.

Although the ages of the parties contracting marriage are not inserted in the marriage registers, the information may be obtained indirectly from the death registers, which contain many interesting particulars relating to the life of the person whose death is recorded. From the information thus obtained it is possible to establish the average duration of life after marriage. Tables giving detailed information on this subject will be found in the *Annual Report on Vital Statistics*. For this volume the appended figures, which relate to the four years 1893–6, and which deal with 10,652 married males and 9,905 married females whose ages both at the time of marriage and of death were known, must suffice. It has not been deemed advisable to deal with the marriages of males under the eighteenth or over the fiftieth year, or of females under the sixteenth or over the forty-third year, as the figures are too small to possess any significance :—

Age at Marriage.	Period lived after Marriage.		Age at Marriage.	Period lived after Marriage.	
	Males.	Females.		Males.	Females.
years.	years.	years.	years.	years.	years.
16	......	38·6	34	27·8	30·7
17	......	34·3	35	29·5	30·7
18	36·9	34·3	36	28·7	30·7
19	38·2	31·2	37	28·2	28·9
20	35·6	32·8	38	28·2	26·5
21	35·1	28·3	39	25·0	29·1
22	34·0	30·9	40	29·4	27·0
23	31·5	29·8	41	23·8	26·1
24	30·1	29·5	42	23·1	30·1
25	31·4	31·1	43	26·8	20·8
26	28·3	29·2	44	22·6	......
27	29·3	30·8	45	24·0	......
28	27·7	30·9	46	22·0	......
29	28·4	27·1	47	19·2	......
30	30·8	31·1	48	20·9	......
31	26·6	29·7	49	21·9	......
32	26·0	27·7	50	24·3	......
33	28·2	29·0			

These averages must not be taken as representing the expectation of life of persons marrying at each of the ages set down. This expectation of life of married persons has not been established, although the requisite data are available. So far as the investigation has proceeded, however, it confirms the popular opinion that the length of life to the enjoyment of which a married person may look forward is greater than that of the unmarried, both female and male, at the same age.

FECUNDITY OF MARRIAGES.

The death records of the colony also show the issue, both living and dead, of the deceased. During the four years 1893–6 there died 11,699 married males and 10,665 married females. The children of these

11,699 men numbered 61,557, giving an average of 5·26 to each married man. The registrations of death showed that of these children 23,963 males and 22,871 females were alive, and 7,939 males and 6,784 females were dead. The total issue of the 10,665 married women numbered 54,632 children, or an average of 5·12 to each woman. Of this number, 20,294 male and 19,618 female children were alive, and 7,771 male and 6,949 female children were dead. An analysis of the figures shows that at each age at marriage the average number of children resulting from the unions was as set down below. It is necessary to state that in cases where the deceased was married more than once, the age at the first marriage only is noted in the table, while the total family, whether the fruit of one or more than one marriage, is included. The table shows only three children as issue of females who married after reaching age 45 :—

Age at Marriage.	Average number of Children resulting from marriage of—		Age at Marriage.	Average number of Children resulting from marriage of—	
	Males.	Females.		Males.	Females.
years.	years.	years.	years.	years.	years.
13	......	8·50	41	3·41	0·95
14	......	5·62	42	3·56	1·13
15	......	7·40	43	4·18	0·70
16	5·89	7·16	44	3·20	0·31
17	5·09	6·98	45	3·50	0·12
18	6·16	6·61	46	3·16	......
19	7·52	6·59	47	3·47	0·17
20	6·43	6·10	48	3·13	0·40
21	6·59	5·57	49	4·10	......
22	6·41	5·49	50	2·27	......
23	6·14	5·38	51	1·67	......
24	6·11	5·05	52	1·83	......
25	6·12	4·74	53	1·00	......
26	5·58	4·20	54	1·24	......
27	5·80	4·32	55	2·06	......
28	5·39	4·02	56	0·20	......
29	5·24	3·74	58	0·33	......
30	5·13	3·58	59	1·00	......
31	4·65	3·20	60	2·21	......
32	4·68	2·85	61	0·33	......
33	5·19	2·71	62	0·57	......
34	4·72	2·46	63	0·25	......
35	4·67	2·21	64	1·00	......
36	4·71	1·84	66	2·00	......
37	4·90	1·46	Not stated	2·00	2·24
38	4·73	0·96			
39	4·34	1·34			
40	4·34	0·83	Average..	5·26	5·12

The difference between the number of children born to males and to females is explained by the larger number of second marriages contracted by men. If it were not for this fact, the averages of males and females would, of course, be the same.

The average number of children born to a marriage in each of the Australasian colonies, during the decennial period, 1887-96, is shown below:—

Colony.	Average number of Children per marriage.	Colony.	Average number of Children per marriage.
New South Wales...	5·19	Western Australia.	7·20
Victoria	4·64	Tasmania	4·79
Queensland	5·45	New Zealand	5·01
South Australia......	4·49	Australasia...	4·92

The average for New South Wales is established by the previous table. For the other colonies the ordinary empirical formula in use amongst statisticians, *i.e.*, dividing the number of births in any year by the marriages occurring in the seventh previous year, has been employed. There is no doubt that the formula gives somewhat too high an average for these colonies, although it works out correctly enough when applied to more settled countries. The average number of children to a marriage in the United Kingdom is:—

England and Wales	4·52
Ireland	5·04
Scotland	4·93

The figures for Ireland are exceptionally high, which is somewhat surprising, as the average age of persons marrying there is much higher than in Australia. The lowest number of children born to a marriage in any of the important European countries is in France, where the average is only 3·08.

The influence which the ages of husband and wife exert on the birth-rate is a subject which has attracted a great deal of attention, and statistics which throw any light on this point are much to be desired. So far as New South Wales is concerned, the information at present available covers only the period of a few years; nevertheless the figures possess very great interest. Dealing only with legitimate natality, the number of births within the period 1893–5 was 110,597; and with an adjustment of the ages of the parents as returned, in order to counteract the recognised tendency of the people to state their ages at the nearest quinquennial period, such as 20, 25, 30, 35, and so on, it would appear that the probability of a birth in the course of a year from a union in which the age of the husband is between 25 and 60 and the age of the wife between 20 and 40 is as follows :—

Age of Husband.	Age of Wife.				
	20 years.	25 years.	30 years.	35 years.	40 years.
	per cent.	per cent.	per cent.	per cent.	per cent.
25 years	42·6	39·3	36·0	30·0	25·8
30 years	42·0	38·3	34·0	31·0	25·0
35 years	42·7	36·7	32·6	30·0	25·7
40 years	42·6	35·5	30·2	28·5	24·1
45 years	40·0	31·3	27·9	26·5	22·2
50 years	34·5	27·3	25·8	24·2	20·8
55 years	26·8	25·1	24·0	23·0	18·7
60 years	24·3	23·2	22·6	21·0	15·5

The age of the wife is by far the more important factor in determining the birth-rate. As that advances, it is seen that there is a sharp decline in the probability of child-birth at each quinquennial period of life, the tendency being towards a heavier fall at each successive stage. On the other hand, with a young wife of 20 years the percental birth-rate remains about the same until the husband passes the age of 40; and even in cases in which the woman is considerably older, the probability of birth at any fixed period of life only becomes greatly diminished after the man has passed the fortieth year. Thus, an examination of the table will show that if the husband is 25 years and the wife 20 years the probability of a birth during twelve months is 42·6 per cent., and the same rate obtains where the husband is 40 and the wife 20; but if the wife is 40 years of age as well as the husband the probability is reduced to 24·1 per cent. Further, in a case where the husband is aged 50 years and the wife 25 years the percental birth-rate is 27·3, which, however, declines to 20·8 if the wife is 40 years old.

Mr. Galton, F.R.S., from data furnished by Joseph Körösi, Director of Municipal Statistics at Budapest, and compiler of some interesting natality tables based on data collected in the Hungarian capital city, deduces a theory to the effect that, provided the age of the husband exceeds that of the wife and the woman has not approached too closely to the limit of the child-bearing age, the difference between the ages of the couple has nothing to do with the probability of birth in nine cases out of ten, the percental birth-rate being determined by the sum of the two ages; that as the sum of the two ages increases the percental birth-rate decreases; and that in consequence of the operation of this curious law the result obtained by adding the percental birth-rate to the sum of the ages of father and mother is so much the same, no matter what the united ages of the parents may be, that it is possible to establish a constant number—93 or 94 for the population of Budapest—which will in any case give the probability of birth during a year by merely subtracting from it the sum of the ages of the husband and wife. Thus, it is desired to know what is the probability of a child being born to a certain couple in the course of a year, the age of the husband being 40 and that of the wife 29. Adding these ages together, a sum of 69 is obtained, and deducting this number from the constant 93, a remainder of 24 is the result; that is to say, the probability of a child being born to this couple within the twelve months would be ·24, or, as near as possible, amongst four couples of these ages a child would be born to one couple every year. If it were proved that, within the limitations previously mentioned, the sum of the ages of the husband and wife generally determined the percental birth-rate, the discovery would be a very important one; but however true this theory may be in respect to the population of Budapest, investigation has proved that it does not apply to the people of New South Wales.

DIVORCES.

The grounds on which divorces and judicial separations are granted in New South Wales will be found set forth in the chapter dealing with "Law and Crime." Since the passing of the amending Act of 1892, by which the grounds of divorce were greatly increased, the business of the Divorce Court has grown enormously. Indeed, so much has this been the case that out of a total of 2,249 petitions for divorce and 169 for judicial separation presented to the Court from 1873 to the end of 1896, no less than 1,593 petitions for divorce and 102 for judicial separation were presented in the last five years. Of the 2,249 petitions for divorce—644 of which were presented *in forma pauperis*—67 were dismissed and 436 were not proceeded with to 31st December, 1896. In the remaining 1,746 cases decrees *nisi* were granted, of which 1,544 had been made absolute, and 202 had not been made absolute to 31st December, 1896. Of the 169 petitions for judicial separation, 8 were dismissed, 81 were not proceeded with, and the remaining 80 were granted. During the period of twenty-four years there were only 16 petitions for nullity of marriage. Of these, 3 were not proceeded with, and the remaining 13 were granted. Of 13 petitions for restitution of conjugal rights, 2 were dismissed and 9 not proceeded with. In only two cases were decrees *nisi* granted, and of these two decrees one had been made absolute to 31st December, 1896.

Before the new Act came into force on the 6th August, 1892, no divorce causes were tried at Circuit Courts. Since this procedure has been allowed, however, it has not been followed to any great extent, only 21 petitions having been considered in the country districts during the three years and a half.

In the 1,746 successful suits for divorce the husband was the petitioner in 619 cases, and the wife in 1,127; in the 80 suits for judicial separation the husband was the petitioner in 8 cases, and the wife in 72; while of the 13 decrees for nullity of marriage 7 were granted at the suit of the husband, and 6 at the suit of the wife. The total number of decrees granted at the instance of the husband was, therefore, 634; and at the instance of the wife, 1,205. Of every 100 divorce decrees granted in the colony, the wife has been the petitioner in 66 cases, and the husband in 34.

In three out of every ten successful divorce petitions, relief is sought on more than one ground, and to give a statement of the grounds as they are set forth in the petitions would be to enter into possibly unnecessary detail. The appended table, therefore, only shows the more important grounds, chief amongst which are adultery, desertion, cruelty, and habitual drunkenness:—

Grounds of Suit.	Divorces (Decrees *Nisi*) Granted.	Judicial Separation Granted.	Decrees of Nullity of Marriage Granted.	Total.
Adultery	621	14	....	635
,, with habitual drunkenness, etc.	35	2	....	37
Adultery, with cruelty, desertion	253	20	....	273
Bigamy, with adultery	31	....	5	36
Incestuous adultery	2	....	....	2
Desertion	581	1	....	582
Cruelty	17	32	....	49
,, and desertion	18	1	....	19
Habitual drunkenness, with cruelty, desertion	169	10	....	179
Imprisonment for three years	15	....	....	15
Frequent conviction for crime	1	....	....	1
Non-consummation of marriage	2	....	7	9
Lunacy of petitioner	....	....	1	1
Cruelty and attempt to murder by administering poison	1	....	....	1
Total	1,746	80	13	1,839

Of the 1,746 divorce decrees granted up to the end of 1896, 621 were grounded on the act of adultery, 2 on incestuous adultery, and 31 on adultery with bigamy, the respondent having broken the law by going through a form of marriage; making altogether a total of 654 decrees; and if to this number be added those cases in which adultery was allied with habitual drunkenness, cruelty, or desertion, or with any two or all three of these grounds, no fewer than 942 decrees are obtained, or 53·9 per cent. of the total number of 1,746. Desertion is a common cause of dissolution of marriage. On this ground alone, as many as 581 decrees, or 33·3 per cent. of the total, were granted; and the details disclose the fact that in 255 other cases in which divorce was granted the petitioner had been deserted by the respondent. In only 17 cases of divorce was a decree granted because of cruelty only, but there were 313 other cases in which cruelty was alleged. Habitual drunkenness was the principal ground on which the petition was based in 169 cases; but in only 3 cases was this a single cause of action; drunkenness in the other 166 cases being allied with cruelty, desertion, and neglect of domestic duties; while in 34 additional divorce cases habitual drunkenness was set forth with other reasons as entitling the petitioner to a dissolution of the marriage bond. Altogether, therefore, habitual drunkenness entered into 203 cases out of 1,746 in which divorce was granted, or 11·6 per cent.

Of the 1,839 marriages which resulted in divorce or judicial separation, or which were nullified, the great majority were celebrated in the Australasian colonies, and more than three-fourths in New South Wales alone. The actual number celebrated in this colony was 1,430, or 77·7 per cent. of the total number; and in all Australasia, 1,651, or 89·8 per cent. Of the other 188 marriages, 157, or 8·5 per cent., took place in the United Kingdom, namely, 129 in England, 11 in Wales, 9 in Scotland, and 8 in Ireland. The countries where the other marriages were celebrated are stated below:—

Marriages celebrated in—	Divorces and Judicial Separations.	Marriages celebrated in—	Divorces and Judicial Separations.
New South Wales	1,430	Cape Colony	3
Victoria	98	Canada	1
Queensland	45	Denmark	1
South Australia	18	Italy	1
Tasmania	14	France and New Caledonia	3
New Zealand	46	Russia	1
England	129	United States	5
Wales	11	China	1
Scotland	9	Not stated	6
Ireland	8		
Fiji	3		
India	6	Total	1,839

Although the Roman Catholic Church does not recognise divorce, yet a considerable number of marriages solemnised according to the rites of that Church have been dissolved by the law. Still, the figures are by no means large when they are viewed in connection with the number of broken marriages which had been celebrated by denominations whose adherents form much smaller proportions of the population of the colony. Thus, out of the 1,839 divorces, judicial separations, and petitions for nullity of marriage granted to the end of 1896, only 193 of the marriages had been solemnised by the Roman Catholic Church, while the Church of England had solemnised 725, and even the Presbyterians 311. The Wesleyan and other Methodist Churches had celebrated 190 of the marriages; the Congregational Church, 139; the Baptist, 29; the Hebrew, 12; and other denominations, 29; while the ceremony in 184 cases had been performed at a Registrar's office, and in the remaining 27 cases the Church was not stated.

Of the 1,826 couples who were divorced or judicially separated, and the 13 couples whose marriage was declared null, 160, or 8·7 per cent.

of the total of 1,839, had been married for a period of less than 5 years; no fewer than 631, or 34·2 per cent. of the whole number, had been married for periods ranging from 5 to 10 years; 519, or 28·2 per cent., between 10 and 15 years; and 295, or 16·0 per cent., between 15 and 20 years. In no less than 192 cases the duration of the marriage was between 20 and 30 years; while in 42 cases the period was even greater, extending, indeed, over 40 years in the case of 6 couples. Marriages of long duration are, therefore, just as liable to be severed by the Divorce Court as those of shorter length. Nor does the possession of a family deter the aggrieved party from seeking redress at law; for in one case the children numbered 15; in two cases, 14; in one case, 12; in five cases, 11; in three cases, 10; in nineteen cases, 9; in nine cases, 8; in fifteen cases, 7; in thirty-one cases, 6; in sixty-five cases, 5; in ninety-two cases, 4; in 182 cases, 3; in 279 cases, 2; while in 429 cases there was one child born to the marriage. It is a fact, however, that in 35·6 per cent. of the cases in which the decree craved for was granted, the ties between the parties had not been strengthened by the birth of children; for of the 1,839 successful petitions for divorce, judicial separation, or nullity of marriage, no fewer than 655 affected parties who were childless, while the number may have been even larger than this, as in 51 other cases the information did not disclose particulars regarding the fruitfulness of the unions. The number of children affected by the other 1,133 decrees was 2,900, and if allowance be made on account of the 51 cases referred to, it may possibly have reached 2,980.

The conjugal condition of the contracting parties to the marriages concerning which the petitions were granted, is shown in the following table:—

Conjugal condition of Males.	Conjugal condition of Females.				Total Males.
	Spinster.	Widow.	Divorced.	Not stated.	
Bachelor	1,454	62	1	4	1,521
Widower	53	25	1	1	80
Divorced	3	......	1	......	4
Not stated	66	14	......	153	233
Total, Females	1,576	101	3	158	1,838

These figures are exclusive of a nullity suit granted on account of a previous existing marriage of the husband.

Among the 1,839 marriages dissolved from 1873 to the close of 1896 there were 594 in which the age of either husband or wife, or of both, when the marriage was contracted, was unknown. Of the remaining 1,245 cases it may be said that the great majority related to marriages contracted between parties of suitable ages, about 703 being between husbands of the ages between 21 and 40 years and wives of the ages between 18 and 30 years. In nearly 300 cases, however, the narriage had been contracted at very early ages, the husband being below 1 years in 257 cases, and the wife below 18 in 206 cases, while there vere about 68 cases in which the husband was less than 21 and the wife ess than 18 at the time of marriage. There were only about 45 cases n which the husband had been over 40 at the time of marriage, and ess than 30 in which the wife had been over 30, while unions in which he husband had been over 40 and the wife over 30 numbered but 18.

Perhaps the union which presented the most peculiar features was ne in which the husband was 14 and the wife 15 at the time of narriage. After a duration of 31 years the bond was severed, at the nstance of the husband, on account of the wife's adultery, but ultimately he petitioner neglected to have the decree made absolute. Another xtreme case was that of a woman of 35 who married a man of 75, and fter one year's endurance of her husband's cruelty filed a petition for udicial separation, which was, however, not further proceeded with.

The nationalities of husbands and wives whose marriages were dis-olved call for no particular comment. Of the husbands, natives of New outh Wales, England, Ireland, Scotland, and Victoria form the only arge groups, in the order named; while among the wives the order is lightly altered, Victorians coming next to Englishwomen, and Irish-vomen being more numerous than natives of Scotland. As might be xpected, there is a much greater preponderance of natives of New outh Wales among the wives than among the husbands, the numbers eing 905 and 653 respectively, while in 607 cases both husband and vife were natives of the colony. There were 476 Englishmen and 320 Englishwomen whose marriages were dissolved, while England was he birthplace of both husband and wife in 171 cases. After these he most numerous groups in which husband and wife were natives f the same country were those of Ireland and Victoria, but in these roups there were only 25 and 26 cases respectively. The other groups, xcept the 18 cases in which both husband and wife were natives of cotland, are too small to deserve mention.

A statement of the divorces, judicial separations, and decrees of ullity of marriage granted in New South Wales in five-year periods to 892, and annually during the last four years, will be found below :—

Period.	Divorces (decrees *nisi*) Granted.	Judicial Separations Granted.	Decrees of Nullity of Marriage Granted.	Total.
1873–1877	55	......	......	55
1878–1882	84	......	......	84
1883–1887	139	8	2	149
1888–1892	320	30	5	355
1893	304	9	1	314
1894	369	14	2	385
1895	302	11	2	315
1896	173	8	1	182
Total	1,746	80	13	1,839

It has already been explained that until 1873 the Supreme Court of the colony had no jurisdiction in divorce. From the 1st July in that year down to the end of 1892 the number of divorce decrees granted was 598. In the month of August, 1892, the new Divorce Act had come into force, and in 1893 the number of decrees *nisi* granted rose to 304, and in the following year to 369; while in 1895 the number was still as high as 302. On the basis of the figures of these three years, the number of divorces per 10,000 marriages in New South Wales was 403—an average which placed the colony in the position of having more divorces proportionately to marriages than any other country in the world except the United States and Switzerland. Of course, it is only fair to assume that after the new Act was passed in 1892 advantage was taken of its provisions to dissolve marriages which would have been broken long before had the grounds on which divorce is granted always been the same; and it is not surprising, therefore, to find that the number of divorce decrees granted in 1896 was only 173, as compared with over 300 in each of the preceding three years.

Below will be found a statement showing the average number of divorces per 10,000 marriages in each of the principal countries of the world. The figures are based on a period of ten years wherever possible; hence the average of New South Wales given in the table is lower than the present position of the colony warrants:—

Country.	Divorces per 10,000 marriages.	Country.	Divorces per 10,000 marriages.
Canadian Dominion	4	Belgium	81
United Kingdom	11	Sweden	87
Norway	16	Australasia	94
Queensland	18	Cape Colony	98
South Australia	25	Netherlands	103
Tasmania	38	Germany	165
* Austria Proper	43	France	180
Western Australia	44	New South Wales	189
Greece	50	Roumania	204
New Zealand	58	Switzerland	432
Victoria	71	United States	612

* Including Separations, &c.

In Austria, only, have judicial separations been taken into account in calculating the averages. In that country the civil law only permits of the divorcement of persons who do not belong to the Roman Catholic Church, adherents to this church being restricted to judicial separations except in the few cases in which marriages are annulled by the Pope by a declaration of their invalidity from the beginning. Owing to the great preponderance of the Catholic population, the number of separations is much larger than that of divorces, the annual averages over a period of years being 672 judicial separations, 19 annulments, and 92 divorces, giving a total of 783, equal to 43 marriages dissolved in every ten thousand. In the United States of America no general system of registration of births, deaths, and marriages is in force. For the purpose of comparison, the marriage-rate of that country has been assumed to be 6·50 per 1,000 of mean population, and on that basis the 20,660 divorces granted annually during ten years would give an average not less than 612 per 10,000 marriages. Of European countries where divorce laws are in force, no reliable statistics are available with respect to Denmark, Hungary, Russia, and Spain; while in Italy and Portugal divorce is not recognised by law.

In the Dominion of Canada divorce was, under the Union Act, assigned to the Federal Parliament, but those provinces which had established divorce courts before the accomplishment of federation, namely, Nova Scotia, New Brunswick, Prince Edward Island, and British Columbia, were permitted to retain the jurisdiction which they already exercised. In the remaining provinces, Ontario, Quebec, and Manitoba, and in the North-west Territories, no divorce courts have been established since the constitution of the Dominion, and divorce can only be obtained by legislation, the matter being dealt with in each case as an ordinary private Act of Parliament, with this difference, however, that the Senate requires the production of such evidence in support of the application for relief as would be deemed sufficient in a court of law. During a period of ten years, 118 divorces were granted in Canada, namely, 42 by the Dominion Parliament, and 76 by the provincial courts, with the exception of that of Prince Edward Island, which has not so far granted a single divorce. No general system of registration exists in the Dominion, but it may be said that the divorces do not exceed 4 for every 10,000 marriages. Newfoundland has no divorce law.

BIRTHS.

The mean annual birth-rate of the Australasian colonies during the ten years ended 1896 was 32·06 per thousand of population. The highest average was that of Queensland, namely, 35·41; then came New South Wales, with 33·47; Tasmania, with 32·56; South Australia, with 31·90; Victoria, with 31·38; Western Australia, with 30·87; and New Zealand, with 28·69. In all the colonies the birth-rate is declining. The figures for 1896 show that in that year the rate in New South Wales was 28·35 per thousand; in Victoria, 27·28; in Queensland, 30·06; in South Australia, 28·00; in Western Australia, 22·77; in Tasmania, 28·16; and in New Zealand, 26·35. The heavy decline in Western Australia may be set down to the large influx of male population which has taken place during the past few years. There can hardly be a doubt that the depression which has prevailed in the Australian colonies for a number of years has not only had an adverse influence on the marriage-rate, and through the marriage-rate on the birth-rate, but, in addition to this, has in many cases led to the adoption of artificial checks on procreation.

For further comparison, the mean annual birth-rates per thousand of population in several European countries are given below; and from these figures the high rate of New South Wales becomes still more apparent. The information is taken from the report of the Registrar-General of England, the figures covering the period of twenty years from 1871 to 1890:—

United Kingdom	32·6	Prussia	38·2
England and Wales	34·0	Austria	38·6
Scotland	33·6	Hungary	44·0
Ireland	24·9	Holland	35·2
France	24·6	Belgium	31·0
Switzerland	29·4	Denmark	31·7
Italy	37·3	Norway	30·7
Germany	38·1	Sweden	29·9

In New South Wales, the births increased year by year from 1865 to 1893, and now exceed those of any other colony. The superiority in number rested with Victoria until the year 1879, when the births in New South Wales exceeded those of her southern neighbour by 94. During each of the last seventeen years the excess has been maintained, the greatest being in 1886, when it reached 5,460. In 1896 the difference was 4,388 in favour of New South Wales, although in this colony there was a decrease in the number of 2,268 as compared with the year 1895.

In no year, as far as observation extends, has the female births exceeded in number those of males. The preponderance of births of male children in New South Wales during a number of years will be seen from the table given below. The figures are exclusive of children stillborn, the births of which are not required to be registered:—

Year.	Males.	Females.	Total.	Year.	Males.	Females.	Total.
1871	10,326	9,817	20,143	1892	20,532	19,509	40,041
1876	11,791	11,507	23,298	1893	20,822	19,520	40,342
1881	14,891	14,102	28,993	1894	19,993	18,958	38,951
1886	18,700	17,584	36,284	1895	19,877	18,897	38,774
1891	20,386	19,072	39,458	1896	18,691	17,815	36,506

The excess of males over females born during the past twenty-six years has ranged from 2·08 per cent. in 1875 to 7·65 per cent. in

1889, the average being 5·05 per cent. The following table shows the number of males born to every 100 females :—

Year.	Males born to every 100 females.	Year.	Males born to every 100 females.
1871	105·18	1892	105·24
1876	102·47	1893	106·67
1881	105·59	1894	105·46
1886	106·35	1895	105·19
1891	106·89	1896	104·92

A number of theories have been advanced as accounting for the variation in the proportion of male to female births, but as none finds support in the vital statistics of New South Wales, it is needless to discuss them here. It is the case that in some years the illegitimate births in the colony show a majority of female children, and during the last twenty-six years the proportion of male to 100 female illegitimate births has ranged from 94·96 in 1873 to 121·96 in 1876. Excluding the illegitimates, the variation in the excess of males over females has ranged from 1·71 per cent. in 1876 to 8·06 per cent. in 1889.

Births are more numerous in spring than in any other part of the year, and are fewest in the March quarter. This is found to be the case in the other colonies of Australasia as well as in New South Wales. The following table gives the number of births in each quarter of the year since 1877 :—

Year.	Quarter ending—				Year.	Quarter ending—			
	31 March.	30 June.	30 September.	31 December.		31 March.	30 June.	30 September.	31 December.
1877	5,620	5,837	6,421	5,973	1887	9,075	9,183	9,890	9,088
1878	5,962	6,165	6,976	6,225	1888	9,058	9,651	10,162	9,654
1879	6,231	6,591	7,264	6,847	1889	9,125	9,292	9,635	9,243
1880	6,590	7,116	7,230	7,226	1890	9,154	9,667	10,497	9,642
1881	6,976	6,983	7,514	7,520	1891	9,161	9,662	10,345	10,290
1882	7,195	7,273	7,827	7,407	1892	9,753	10,361	9,655	10,272
1883	7,378	7,755	8,000	8,148	1893	9,610	10,187	10,578	9,967
1884	8,141	8,443	9,160	8,202	1894	9,619	9,981	9,551	9,800
1885	8,178	8,508	9,656	8,701	1895	9,394	9,336	10,080	9,964
1886	8,451	8,976	9,592	9,265	1896	9,294	9,031	9,153	9,028

Separating the colony into the metropolitan and country districts, it will be seen from the following table that during recent years the birth-rate per thousand has been higher in the metropolis than in the remainder of the colony. This is due to the proportionately larger number of females in the metropolitan population as compared with the country population, among whom males largely predominate. The highest rate reached for the whole of New South Wales during the last twenty years was 38·99 in 1879. The estimated maximum rate for the metropolis was reached in 1885, when the births were 45·46 per thousand of the population. In the country districts the greatest number of births in proportion to the population occurred in 1879, when the rate was 38·92 per thousand :—

Year.	Births per thousand of the population.			Year.	Births per thousand of the population.		
	Metropolis.	Country.	New South Wales.		Metropolis.	Country.	New South Wales.
1877	37·67	38·02	37·92	1887	43·21	34·31	37·06
1878	38·15	38·65	38·50	1888	41·92	35·02	37·20
1879	39·18	38·92	38·99	1889	38·73	33·18	34·97
1880	39·00	38·73	38·81	1890	37·23	34·44	35·36
1881	39·21	37·34	37·90	1891	35·95	33·76	34·50
1882	40·23	35·90	37·20	1892	34·70	33·48	33·89
1883	40·81	35·82	37·32	1893	33·52	33·23	33·33
1884	44·70	35·75	38·44	1894	31·65	31·38	31·48
1885	45·46	35·18	37·79	1895	30·67	30·65	30·66
1886	44·53	34·32	37·43	1896	30·06	27·55	28·35

The excess of births over deaths has not shown a steady increase year by year, but has fluctuated somewhat, as will be seen from the succeeding table. In the whole colony, during the twenty years from 1877 to 1896, the least excess was 13,982 in 1877, and the highest 25,631 in the year 1892. In the metropolis the least excess was in 1878, viz., 3,186 ; and the highest in 1892, when the number reached 8,558. In the country districts the number ranged from 10,658 in 1877 to 17,073 in 1892 :—

Year.	Metropolis.	Country Districts.	New South Wales.	Per cent. of population at end of previous year.
1877	3,324	10,658	13,982	2·28
1878	3,186	11,379	14,565	2·26
1879	3,947	12,786	16,733	2·49
1880	3,434	13,497	16,931	2·39
1881	4,560	12,897	17,457	2·33
1882	4,608	12,278	16,886	2·16
1883	5,342	13,690	19,032	2·33
1884	5,946	13,780	19,726	2·29
1885	5,773	13,988	19,761	2·18
1886	6,860	14,837	21,697	2·28
1887	7,874	15,914	23,788	2·40
1888	7,449	16,668	24,117	2·36
1889	7,006	15,493	22,499	2·14
1890	7,938	16,804	24,742	2·29
1891	7,588	15,584	23,172	2·07
1892	8,558	17,073	25,631	2·14
1893	7,472	16,848	24,320	2·03
1894	7,406	16,328	23,734	1·94
1895	7,276	16,584	23,860	1·91
1896	6,713	13,954	20,667	1·62

The mean annual increase to the population by reason of the excess of births over deaths amounts to 2·19 per cent. for a period extending over twenty years—that is, going back to the year 1877.

Notwithstanding the fact that the males born are more numerous than females, the actual increase of population from the excess of births over deaths is greatly in favour of the females. The male population largely exceeds the female, and there is a correspondingly larger number of deaths of males. There is also a greater mortality amongst male than amongst female children, and from this cause alone the natural excess of male births is almost neutralised. During the ten years which closed with 1896, the number of females added to the community by excess of births exceeded the males by 14,931, or 13·47 per cent.

AGES OF PARENTS.

During the four years 1893–96 the ages of the women giving birth to children ranged from 13 to 58 years. As might be expected, the majority of the very young mothers were unmarried; thus of 1,774 mothers under 18 years of age, 972 were unmarried. The total number of married women who gave birth to children during the four years was 143,188, inclusive of mothers of twins and triplets. The following is a statement of the number of married mothers at each age:—

Ages of Married Mothers.	Number of Mothers.	Ages of Married Mothers.	Number of Mothers.
14 years	2	35 years and under 40	22,914
15 „	24	40 „ „ „ 45	8,305
16 „	149	45 years	432
17 „	627	46 „	247
18 „	1,464	47 „	122
19 „	2,695	48 „	60
20 „	3,702	49 „	26
21 „	5,251	50 „	4
22 „	6,538	52 „	3
23 „	7,537	53 „	1
24 „	7,973	55 „	2
25 „	8,121	56 „	1
26 „	8,561	58 „	1
27 „	8,216	Not stated	11
28 „	8,505		
29 „	7,711		
30 years and under 35	33,983	Total	143,188

It will be seen that in two cases the age of the mother is stated as 55 years; in another case, as 56 years; and in still another case, as 58. As these four cases were outside the usual experience, inquiries were made, with the result that the accuracy of the records was confirmed. It may be mentioned that in the first two cases the ages of the fathers were 45 years and over 55 years; in the second case, 58 years; and in the third case, 64 years.

The average age of the fathers was about 4·87 years higher than that of the mothers. During the four years 1893–96, the ages of the fathers ranged from 17 to 84 years, as shown below :—

Ages of Fathers.	Number of Fathers.	Ages of Fathers.	Number of Fathers.
17 years	5	66 years	20
18 ,,	49	67 ,,	13
19 ,,	152	68 ,,	16
20 ,,	411	69 ,,	15
21 ,,	1,167	70 ,,	11
22 ,,	2,076	71 ,,	4
23 ,,	3,134	72 ,,	4
24 ,,	4,152	73 ,,	3
25 ,,	5,009	74 ,,	1
26 ,,	5,780	75 ,,	5
27 ,,	6,447	76 ,,	1
28 ,,	7,195	77 ,,	2
29 ,,	7,754	78 ,,	1
30 years and under 35	37,866	79 ,,	1
35 ,, ,, 40	30,597	80 ,,	1
40 ,, ,, 45	17,441	82 ,,	1
45 ,, ,, 50	8,718	83 ,,	1
50 ,, ,, 55	3,566	84 ,,	1
55 ,, ,, 60	1,171	Not stated	22
60 ,, ,, 65	349		
65 years	26	Total	143,188

BIRTHPLACES OF PARENTS.

A tabulation of the birthplaces of the 286,376 parents mentioned above shows that of the fathers, 75,490 were born in New South Wales; 9,248 in Victoria; 1,373 in Queensland; 2,847 in South Australia; 90 in Western Australia; 1,267 in Tasmania; and 1,288 in New Zealand. The total number of Australasian-born fathers was, therefore, 91,603. Of Australasian-born mothers there were 113,062, viz. :—94,105 natives of New South Wales; 10,544 of Victoria; 2,301 of Queensland; 3,534 of South Australia; 103 of Western Australia; 1,185 of Tasmania; and 1,290 of New Zealand. In 63,348 cases both father and mother were natives of New South Wales; and in 82,879 cases they were natives of one or other of the Australasian colonies.

There were 44,542 fathers born in the United Kingdom, viz. :—26,943 in England; 987 in Wales; 6,674 in Scotland; and 9,938 in Ireland. Mothers born in the United Kingdom numbered only 27,623, viz. :—15,088 English; 595 Welsh; 3,887 Scotch; and 8,053 Irish. In 18,236 cases both parents were born in the United Kingdom; in 8,174 cases both were English; in 194 cases both Welsh; in 1,955 cases both Scotch; and in 4,027 cases both Irish.

Fathers born in other British colonies and possessions numbered 795, viz. :—245 born in Asiatic possessions; 167 born in various African possessions; 237 in Canada and Newfoundland; 76 in the West Indies, and 70 elsewhere. Of 437 mothers, 176 were born in Asiatic possessions; 107 in African possessions; 58 in Canada; 17 in the West Indies; and 79 elsewhere.

Foreign-born fathers were more numerous. Amongst them were 1,892 Germans, 297 Frenchmen, 369 Russians, 114 Austrians, 432 Danes, 1,002 Swedes and Norwegians, 301 Italians, 389 natives of other European countries, 249 Chinese, 53 natives of other Asiatic countries, 5 natives of African countries, 570 natives of the United States, 53 natives of other American countries, and 22 Polynesians; total, 5,748. Of 1,695 foreign-born mothers, 632 were German, 97 French, 114 Russian, 27 Austrian, 81 Danish, 62 Swedish or Norwegian, 166 Italian, 127 natives of other European countries, 78 natives of China, 37 of other Asiatic countries, 3 of African countries, 230 of the United States, 18 of other American countries, and 23 of Polynesia. There were only 1,016 cases in which both parents were foreign-born.

Besides the fathers enumerated above, there were 485 who were born at sea, and 15 whose birthplace was not stated. Of mothers there were 360 born at sea, and 11 whose birthplace was not stated.

BIRTH OF FIRST CHILD.

The period elapsing from the date of marriage to the birth of the first child has been ascertained only for the four years 1893 to 1896. The total number of first births occurring during that period was 27,309. The time which had elapsed since the ceremony of marriage was performed is shown in the following table :—

Period.	Number of Births.	Period.	Number of Births.	Period.	Number of Births.
1 month and under	830	16 months ...	646	9 years	36
2 months	785	17 ,, ...	518	10 ,, ...	30
3 ,, ...	1,006	18 ,, ...	438	11 ,, ...	27
4 ,, ...	1,065	19 ,, ...	409	12 ,, ...	19
5 ,, ...	1,166	20 ,, ...	370	13 ,, ...	10
6 ,, ...	1,222	21 ,, ...	337	14 ,, ...	9
7 ,, ...	1,263	22 ,, ...	277	15 ,, ...	10
8 ,, ...	1,205	23 ,, ...	279	16 ,, ...	3
9 ,, ...	3,003	2 years ...	1,683	17 ,, ...	3
10 ,, ...	2,997	3 ,, ...	642	18 ,, ...	2
11 ,, ...	2,033	4 ,, ...	288	22 ,, ...	2
12 ,, ...	1,552	5 ,, ...	176		
13 ,, ...	1,092	6 ,, ...	116	Total ...	27,309
14 ,, ...	879	7 ,, ...	71		
15 ,, ...	751	8 ,, ...	59		

It will be seen that of the 27,309 first births 11,545, or 42·3 per cent., occurred before ten months had elapsed from the date of marriage; and 8,542, or 31·3 per cent., before nine months after marriage.

Excluding births occurring within nine months of marriage, the average period elapsing from the date of marriage to the birth of the first child in fruitful unions is 1·625 years (1 year 7½ months). As will be seen from the following table, there is little difference in the average period of fruitfulness between women married at various ages:—

Age of Mothers.	Number of Mothers.	Average Period elapsing from Marriage to First Confinement.
		years.
Under 20 years	2,570	1·740
20 and under 25	9,023	1·551
25 ,, 30	5,085	1·584
30 ,, 35	1,553	1·818
35 ,, 40	459	2·031
40 ,, 45	81	2·741

Of the wives who gave birth to children during the four years ended 1896, the date of marriage was given in 143,179 cases, and from the particulars thus gleaned it would appear that out of every 100,000 children, 11,576 will be born within a year of their parents' marriage; 25,792 in one and less than five years; 27,878 in five and less than ten years; 19,269 in ten and less than fifteen years; 10,454 in fifteen and less than twenty years; 4,227 in twenty and less than twenty-five years; 760 in twenty-five and less than thirty years; and 44 in thirty years or more.

ILLEGITIMACY.

A statement of the number of illegitimate births in New South Wales is given below. Taking the whole period over which the table extends, it will be seen that the percentage has increased throughout he colony, notably in the city and suburbs of Sydney, the increase in he country districts being very slight :—

Year.	Number of Illegitimate Births.			Percentage of Total Births.		
	Metropolis.	Country Districts.	New South Wales.	Metropolis.	Country Districts.	New South Wales.
1877	382	607	989	5·75	3·52	4·14
1878	425	596	1,021	5·94	3·28	4·03
1879	506	709	1,215	6·44	3·72	4·51
1880	561	665	1,226	6·71	3·36	4·35
1881	592	671	1,263	6·64	3·34	4·36
1882	601	660	1,261	6·24	3·28	4·24
1883	676	642	1,318	6·59	3·05	4·21
1884	786	709	1,495	6·62	3·21	4·40
1885	845	767	1,612	6·89	3·37	4·60
1886	905	782	1,687	6·89	3·38	4·65
1887	873	838	1,711	6·50	3·52	4·59
1888	1,049	909	1,958	7·65	3·66	5·08
1889	1,066	921	1,987	7·99	3·84	5·33
1890	1,056	995	2,051	7·81	3·91	5·26
1891	1,149	966	2,115	8·20	3·80	5·36
1892	1,242	1,047	2,289	8·83	4·02	5·71
1893	1,257	1,253	2,510	9·01	4·75	6·22
1894	1,204	1,233	2,437	9·13	4·79	6·26
1895	1,219	1,305	2,524	9·55	5·02	6·51
1896	1,189	1,256	2,445	9·66	5·19	6·70

Dividing the years since 1871 into quinquennial periods, the average ate of illegitimate births as compared with the total number of births, as as appended :—

Quinquennial Period.	Metropolis.	Remainder of Colony.	New South Wales.
	per cent.	per cent.	per cent.
1871–75	5·11	3·72	4·09
1876–80	6·21	3·44	4·22
1881–85	6·60	3·25	4·36
1886–90	7·37	3·67	4·90
1891–95	8·93	4·38	6·01
1896	9·66	5·19	6·70

Possibly the smaller proportion of illegitimate births noticeable in e country districts is to some extent due to the fact that women who ve fallen come to Sydney to hide their shame. The table given below, owing the number of accouchements at the Benevolent Asylum, certainly gives colour to this supposition, for out of the large number of unmarried women whose confinements took place in that institution it is only reasonable to suppose that the country contributed a considerable quota :—

Year.	Confinements.			Year.	Confinements.		
	Total.	Married Females.	Unmarried Females.		Total.	Married Females.	Unmarried Females.
1865	129	50	79	1881	225	50	175
1866	129	51	78	1882	237	45	192
1867	121	44	77	1883	210	33	177
1868	102	46	56	1884	305	84	221
1869	112	40	72	1885	262	55	207
1870	95	29	66	1886	300	71	229
1871	117	54	63	1887	257	76	181
1872	102	37	65	1888	281	70	211
1873	107	27	80	1889	252	48	204
1874	126	36	90	1890	266	35	231
1875	113	30	83	1891	324	61	263
1876	156	38	118	1892	339	54	285
1877	169	41	128	1893	338	64	274
1878	160	38	122	1894	393	80	313
1879	203	45	158	1895	385	89	296
1880	233	51	182	1896	354	67	287

The rate of illegitimacy in New South Wales is higher than in any of the other Australasian colonies, higher than the general rate of the United Kingdom, higher than in England, Wales, and Ireland, but lower than in Scotland and in most of the continental countries of Europe. Moreover, illegitimacy in New South Wales is increasing, while in the United Kingdom it is decreasing. The following figures, showing the rate of illegitimacy per 100 births in the Australasian colonies and in the United Kingdom, are based on a period of five years :—

Country.	Illegitimate births per cent.	Country.	Illegitimate births per cent.
New South Wales......	6·27	Tasmania	5·01
Victoria	5·50	New Zealand.........	3·97
Queensland...............	4·91	England and Wales.	4·24
South Australia..........	3·08	Ireland	2·65
Western Australia ...	5·29	Scotland..	7·38

Of the total number of children born in Australasia during the five years ended 1896, 5·22 per cent. were illegitimate, as compared with 4·44 per cent. in the United Kingdom during the five years 1891–95.

The following figures, which give the percentages of illegitimate births in a number of foreign countries, cover a period of five years:—

Country.	Illegitimate births per cent.	Country.	Illegitimate births per cent.
Germany	9·15	France	8·67
Prussia	7·75	Belgium	8·81
Bavaria	14·17	Netherlands	3·11
Saxony	12·50	Sweden	10·35
Austria	14·73	Norway	7·09
Hungary	8·49	Italy	6·95

Comparing the illegitimate births in New South Wales with the unmarried females between the ages of 17 and 45, it will be found that they number 2,259 per 100,000, the proportion at different age-periods being as follows:—

Ages.	Mothers of Illegitimates per 100,000 Unmarried Women.
17 years	1,218
18 "	1,786
19 "	2,181
20 years and under 25	2,577
25 " " 30	2,644
30 " " 35	2,783
35 " " 40	2,590
40 " " 45	925

The period of which the foregoing figures represent the average embraces only four years, and it is probable that a greater experience would show that for all ages from 20 to 45, 2·75 per cent. of unmarried women give birth to children.

If the births of illegitimate children be compared with the total number of confinements, it will be found that for all ages the proportion of illegitimates is 6·44 per cent. Excluding ages under 15, during the four years 1893–6, the proportion of illegitimate to total confinements is as follows :—

Ages.	Percentage of Illegitimate to total Confinements.
15 and under 20 years	34·66
20 ,, 25 ,,	10·99
25 ,, 30 ,,	4·06
30 ,, 35 ,,	2·49
35 ,, 40 ,,	2·25
40 ,, 45 ,,	1·96

Although there are instances in which a woman has a numerous family of illegitimate children, illegitimate births are, for the most part, first births. If, then, the illegitimate births, the births of children probably conceived before the marriage of their parents—that is to say, births which have taken place within nine months of marriage—and ordinary first births, are set down side by side in various groups according to the ages of the mothers, some very striking results are obtained—results which afford matter for very serious reflection. The figures are given in the following table, and cover a period of four years :—

Age Group.	Illegitimate Births.		Legitimate Births.			
			Within 9 months of marriage.		9 months and over.	
	Number.	Per cent. of First Births.	Number.	Per cent. of First Births.	Number.	Per cent. of First Births.
15 and under 20 years	2,631	39·97	2,178	33·09	1,774	26·94
20 ,, 25 ,,	3,828	22·63	4,432	26·20	8,658	51·17
25 ,, 30 ,,	1,739	19·77	1,399	15·91	5,657	64·32
30 ,, 35 ,,	867	27·14	373	11·67	1,955	61·19
35 ,, 40 ,,	528	42·31	126	10·10	594	47·59
40 ,, 45 ,,	166	53·55	28	9·03	116	37·42

For all ages the number of illegitimate births forms 26·50 per cent. of the first births, reckoning the illegitimates as first births ; the number of children born within nine months of marriage equals 22·99 per cent. ; while the number of children born nine months and upwards from date of marriage equals 50·51 per cent., or little more than one-half of the total. These figures throw a strong side light on the morals of the community. It unfortunately happens that a comparison cannot be made with previous years, and it cannot therefore be stated whether the moral condition is in any degree better or worse than formerly.

It has already been stated that some of the mothers of illegitimate ildren are very young. This will be seen from the following table, owing the ages of the females who gave birth to illegitimate children ring the four years 1893–6 :—

ges of Mothers.	Number of Mothers.	Ages of Mothers.	Number of Mothers.	Ages of Mothers.	Number of Births.
years	6	27 years	338	41 years	29
,, ...	34	28 ,, ...	311	42 ,, ...	47
,, ...	107	29 ,, ...	237	43 ,, ...	29
,, ...	270	30 ,, ...	253	44 ,, ...	7
,, ...	555	31 ,, ...	146	45 ,, ...	6
,, ...	796	32 ,, ...	163	46 ,, ...	7
,, ...	903	33 ,, ...	146	47 ,, ...	1
,, ...	932	34 ,, ...	159	48 ,, ...	2
,, ...	887	35 ,, ...	150	50 ,, ...	4
,, ...	768	36 ,, ...	103	55 ,, ...	1
,, ...	689	37 ,, ...	107	Not stated	29
,, ...	552	38 ,, ...	91		
,, ...	446	39 ,, ...	77	Total	9,849
,, ...	407	40 ,, ...	54		

The birthplaces of the mothers of illegitimate children were as llow :—New South Wales, 7,245 ; Victoria, 637 ; Queensland, 277 ; uth Australia, 167 ; Western Australia, 5 ; Tasmania, 88 ; New aland, 151 ; England, 691 ; Wales, 27 ; Scotland, 125 ; Ireland, 6 ; other British possessions, 17 ; Germany, 34 ; United States, 12 ; her foreign countries, 29 ; at sea, 9 ; not stated, 29.

Of 4,435 infants who died in the colony during the year 1896 before ey had attained the age of 12 months, 3,717 were legitimate, and 8 illegitimate ; and of 5,925 children who died before they had ached the age of 5 years, 5,108 were legitimate, and 817 illegitimate rom this it would appear that while the death-rate of all children ider 1 year of age was 121·49 per thousand, and of all children ider 5 years of age, 31·34 per thousand ; the death-rate of legitimate ildren of less than 12 months was 109·13 per thousand, and of legi-nate children under 5 years of age, 28·34 per thousand ; and the ath-rate of illegitimates under 12 months of age was 293·66 per ousand, and under 5 years of age, 92·27 per thousand. These ures disclose the fact that the death-rate of illegitimates under 1 ar is 169·09 per cent. higher than that of legitimates, and that the death-rate of illegitimates under 5 years is 225·58 per cent. higher than that of legitimates. In other words, the probability of a legitimate child in New South Wales reaching the age of 5 years is about three times greater than that of an illegitimate child.

TWINS AND TRIPLETS.

During the year 1896 there were two cases of triplets, comprising 2 males and 4 females. Twins numbered 335 cases, comprising 335 males and 334 females, in all 669 children, one infant having been still-born. There were no quartettes. The number of children born as triplets and twins formed 1·85 per cent. of the total births.

District.	Triplets.				Twins.			
	No. of cases.	M.	F.	Total.	No. of cases.	M.	F.	Total.
Sydney	...	...	...	...	17	17	17	34
Suburbs	...	...	...	...	94	87	100	187
Country	2	2	4	6	224	231	217	448
Total	2	2	4	6	335	335	334	669

The following table shows the number of twins and triplets born in New South Wales during the last ten years, excluding those still-born :—

Year.	Triplets.				Twins.			
	No. of cases.	M.	F.	Total living at Birth.	No. of cases.	M.	F.	Total living at Birth.
1887	1	3	......	3	310	294	325	619
1888	1	1	2	3	363	371	355	726
1889	1	2	1	3	329	358	298	656
1890	1	3	......	3	398	405	391	796
1891	......	......	......	......	393	388	397	785
1892	6	8	10	18	328	332	323	655
1893	5	8	7	15	408	400	414	814
1894	3	4	4	8	365	362	367	729
1895	6	12	6	18	396	396	395	791
1896	2	2	4	6	335	335	334	669
Ten years...	26	43	34	77	3,625	3,641	3,599	7,240

There were also quartettes in 1888, 1893, and 1895.

As shown in the foregoing table, there were 3,625 cases of twins, 26 cases of triplets, and 3 quartettes during the ten years 1887–96. The total number of confinements recorded during this period was 382,413. It follows, therefore, that one mother in every 106 gave birth to twins; one mother in every 14,708 was delivered of three children, and one in every 127,471 of four children at a birth.

The ages of the mothers of all twins born during 1893–6 were as follow:—

Ages of Mothers.	Number of Confinements	Ages of Mothers.	Number of Confinements
16 years	2	27 years	65
17 "	5	28 "	89
18 "	7	29 "	93
19 "	14	30 years and under 35	426
20 "	25	35 " " 40	348
21 "	32	40 " " 45	106
22 "	37	45 "	4
23 "	61	46 "	3
24 "	56	49 "	1
25 "	61		
26 "	69	Total	1,504

The ages of 67 unmarried mothers who gave birth to twins are included in the above table.

The ages of the fathers, excluding the 67 cases in which the children were illegitimate, are shown in the following table:—

Ages of Fathers.	Cases of Twins.	Ages of Fathers.	Cases of Twins.
21 years	6	35 years and under 40	389
22 "	11	40 " " 45	202
23 "	20	45 " " 50	101
24 "	31	50 " " 55	55
25 "	28	55 " " 60	18
26 "	34	60 years	2
27 "	41	62 "	1
28 "	66	66 "	1
29 "	68	75 "	1
30 years and under 35	362		
		Total	1,437

Of the mothers of twins, 940 were born in New South Wales; 130 in Victoria; 82 in the other Australasian colonies; 177 in England and Wales; 54 in Scotland; 92 in Ireland; and 29 in other countries. Of the fathers, 696 were born in New South Wales; in Victoria, 96; in the other Australasian colonies, 67; in England and Wales, 316; in Scotland, 69; in Ireland, 105; in other countries, 88.

The ages of the fathers and mothers of the 16 cases of triplets that occurred during the four years, 1893–6, were as follow :—

Ages of Fathers.	Cases of Triplets.	Ages of Mothers.	Cases of Triplets.
28 years	1	22 years	1
29 "	1	26 "	1
30 "	1	27 "	1
31 "	1	30 "	1
32 "	2	31 "	1
33 "	1	32 "	2
34 "	2	33 "	2
36 "	1	35 "	3
39 "	2	36 "	1
41 "	1	39 "	1
43 "	1	40 "	2
45 "	1		
50 "	1		
Total	16	Total	16

Of the fathers, 10 were born in New South Wales, 3 in England, 1 in Scotland, 1 in Ireland, and one at sea; while of the mothers, 12 were born in New South Wales, 2 in England, and 2 in Ireland.

In the case of the quartette which occurred in 1893, the ages of both parents were 21, and both were born in New South Wales; while in the case of the 1895 quartette the father, aged 38, was born in New South Wales, and the mother, aged 36, was born in Ireland.

There were, during the four years 1893, 1894, 1895, and 1896, 200 cases of twins at first birth. The period elapsing between the date of marriage and the birth of the children is shown in the following table :—

Period.	Number of Confinements	Period.	Number of Confinements	Period.	Number of Confinements
1 month	6	11 months	14	21 months	2
2 months	2	12 "	11	22 "	3
3 "	9	13 "	5	23 "	4
4 "	8	14 "	4	2 years	14
5 "	15	15 "	3	3 "	5
6 "	10	16 "	3	4 "	2
7 "	19	17 "	1	7 "	1
8 "	18	18 "	2	11 "	1
9 "	21	19 "	3		
10 "	13	20 "	1	Total	200

Of the 2 cases of triplets which occurred at first birth during the four years 1893–6, 1 took place 9 months, and the other 16 months after marriage. Neither of the 2 quartettes occurred at a first birth.

DEATHS IN CHILD-BIRTH.

Taking one year with another, the deaths resulting from various diseases and casualties incident to child-birth average about 6·63 per thousand births, or one death to every 151 births. As the average number of children born by each mother is 5·12, it follows that out of every 100 child-bearing women 3·39—averaging one woman in every thirty—lose their lives from the casualties of child-birth. During the four years ended 1896 the deaths from various assigned causes were :—

Causes of Death.	1893.	1894.	1895.	1896.	Total 4 years.
Abortion	5	12	11	11	39
Miscarriage	19	21	26	27	93
Puerperal Fever	67	110	111	81	369
Puerperal Mania	3	4	1	5	13
Puerperal Convulsions	22	28	23	27	100
Placenta prævia, Flooding	36	30	40	36	142
Phlegmasia dolens	3	1	2	1	7
Other casualties of child-birth	66	61	64	61	252
Total	221	267	278	249	1,015

It will be seen that about one-fourth of the total number of deaths are simply attributed to child-birth. These would have been classified under their proper headings had fuller information been available. Of the 794 cases which occurred during the three years 1894–6, the children were born alive in 450 cases, and still-born in 344 cases.

Taking the four years 1893–6, 916 of the 1,015 women who yielded up life were married, and 99 single; and as there were during this period 143,188 legitimate and 9,849 illegitimate births—reckoning cases of twins and triplets as single births—it follows that amongst married women the fatal cases average 6·40, and amongst single women 10·05 per thousand births. The law does not require a record of the illegitimate children of a deceased woman, so that it is impossible to say how many single women died in first confinement during the three years under review. Deducting the total number of deaths of single women in child-birth during the four years—99—from the total number of deaths in first confinement, there would remain 220 deaths of married women in first confinement during the period, averaging 8·06 per thousand such births, the total number of first confinements of married women in the course of the four years having been 27,309.

The following table shows the deaths in child-birth during 1893–6 arranged according to the previous issue of the deceased mothers, exclusive of children still-born, no information with respect to these being shown in the death registers :—

Previous Issue, Number of Children.	Number of Deaths.	Previous Issue, Number of Children.	Number of Deaths.
Illegitimate, 0.........	99	Legitimate, 8.........	54
Legitimate, 0.........	220	,, 9.........	27
,, 1.........	108	,, 10.........	19
,, 2.........	104	,, 11.........	25
,, 3.........	72	,, 12.........	9
,, 4.........	87	,, 13.........	1
,, 5.........	68	,, 14.........	1
,, 6.........	61	,, 15.........	1
,, 7.........	58	,, 17.........	1

The ages of all women who yielded up life in giving birth to children during the four years 1893–6 are set forth below. It will be seen that the proportion of fatal cases was smallest at the twenty-fifth year, after which it rapidly rose until at the age period of 40–45 years it was practically the same as the mortality amongst young mothers under 18 years of age. The experience of four years, however, is hardly sufficient to afford absolutely reliable results :—

Ages of Mothers.	Total Number of Mothers.	Deaths in Childbirth.	Deaths to every thousand Births.
Under 18 years..................	1,774	19	10·71
18 years	2,260	18	7·96
19 ,, ...	3,598	31	8·62
20 ,, ...	4,634	20	4·32
21 ,, ...	6,138	32	5·21
22 ,, ...	7,306	43	5·89
23 ,, ...	8,226	43	5·23
24 ,, ...	8,525	41	4·81
25 ,, ...	8,567	33	3·85
26 ,, ...	8,968	44	4·91
27 ,, ...	8,554	44	5·14
28 ,, ...	8,816	59	6·69
29 ,, ...	7,948	42	5·28
30 ,, and under 35	34,851	237	6·80
35 ,, ,, 40	23,441	198	8·45
40 ,, ,, 45	8,471	95	11·21
45 ,, and upwards	920	16	17·39
Not stated	40	....	....
Total..................	153,037	1,015	6·63

DEATHS.

During the ten years ended 1896, deaths in New South Wales have averaged annually 13·97 per thousand males, and 11·78 per thousand females, or 12·96 per thousand of the mean population of the colony.

Compared with the death-rates of other countries, especially those of the Old World, this rate is remarkably low; but, at the same time, it is higher than might be anticipated from the peculiarly healthy climatic conditions which pertain to New South Wales.

The number of deaths registered during 1896 in each of the seven colonies of Australasia, and the death-rate per 1,000 inhabitants, were as follow :—

Colony.	Number of deaths.	Death-rate.
New South Wales	15,839	12·30
Victoria	15,710	13·34
Queensland	5,645	12·10
South Australia	4,083	11·38
Western Australia	2,020	16·53
Tasmania	1,901	11·63
New Zealand	6,432	9·10
Australasia	51,630	12·06

It will be seen that in 1896 the death-rate of New South Wales was higher than the rates of Queensland, Tasmania, South Australia, and New Zealand. If, however, the mean decennial rates be taken for the period from 1887 to 1896, it will be found that New South Wales has a lower rate than any of the colonies with the exception of New Zealand and South Australia. For that period the general rate for Australasia was 13·04 per thousand, ranging from 9·87 per thousand in New Zealand to 15·99 in Western Australia. Four colonies are over the mean rate, namely, Western Australia, with 15·99; Victoria, with 14·83; Tasmania, with 13·72; and Queensland, with 13·41; while three are lower, namely, New South Wales, with 12·96—the nearest approach to the general rate of Australasia; South Australia, with 12·06; and New Zealand, with 9·87 per thousand.

Information respecting the United Kingdom and foreign countries for the corresponding period are not yet available; but the favourable conditions of Australasia as compared with European countries will be manifest from an inspection of the following rates for the decennial period extending from 1881 to 1890 :—

United Kingdom	18·98	Austria	29·51
England and Wales	19·14	Hungary	32·41
Scotland	19·18	Holland	20·97
Ireland	17·94	Belgium	20·31
France	22·01	Denmark	18·61
Spain*	31·04	Norway	16·94
Switzerland	20·82	Sweden	17·05
Italy	27·28		
Germany	25·10	Average	23·15
Prussia	24·69		

* For the period 1878–1884.

In order that a just comparison may be made, the mean decennial rates of the Australasian colonies for the same period (1881–90) are given below :—

New South Wales	14·66	Tasmania	15·61
Victoria	15·56	New Zealand	10·37
Queensland	17·04		
South Australia	13·62	Average, Australasia	14·78
Western Australia	16·59		

There are many causes operating to increase the European rate, which have not yet affected the colonies. Chief amongst these are the scourges of small-pox and cholera. It is not surprising, therefore, that even the healthiest country of Europe should have a higher annual death-rate than any part of Australasia. Considering the favourable environments of the population of New South Wales, the matter for surprise is not that the difference is so great, but that it is not greater. Apart from climatic conditions, which are most favourable here, the social condition of the great body of the people is far superior to that of Europeans, and their occupations are more healthful; and were it not for the pitiable loss of infant life, the death-rate of this colony would not reach much more than half the European average.

The death-rate of males in New South Wales averaged 13·97 per thousand during the last ten years, or more than one-sixth higher than that of females. The number of deaths of each of the sexes, with the rate per thousand from 1887 to 1896, is given below :—

Year.	Number of Deaths.			Death-rate per 1,000 of mean population.		
	Males.	Females.	Total.	Males.	Females.	Total.
1887	7,776	5,672	13,448	14·12	12·49	13·38
1888	8,453	5,955	14,408	14·94	12·67	13·91
1889	8,674	6,122	14,796	14·93	12·61	13·87
1890	8,282	5,936	14,218	13·82	11·81	12·90
1891	9,558	6,728	16,286	15·41	12·86	14·24
1892	8,544	5,866	14,410	13·38	10·81	12·20
1893	9,289	6,733	16,022	14·23	12·07	13·24
1894	8,714	6,456	15,170	13·08	11·30	12·26
1895	8,671	6,243	14,914	12·77	10·66	11·79
1896	9,256	6,583	15,839	13·41	11·02	12·30
	Mean for 10 years			13·97	11·78	12·96

e principal cause of the greater mortality amongst males is found
e nature of their occupations, with the accidents and exposure
lant thereon. This is especially marked in the country districts
e colony, where deaths from accident are extremely numerous,
ally among males. Besides this, the greater delicateness of male
s operates to increase the death-rate as compared with that of
es. During the ten years 1887–96 the natural increment to the
ation by births was in the proportion of 105·31 males to 100
es; but, from the causes alluded to, the net increase of population
cess of births over deaths is largely in favour of females. For the
l mentioned the excess of births over deaths averaged annually
ales 11,082, and for females 12,575, the net increase being there-
n the proportion of 1,000 males to 1,135 females.

e excess of males in the community, with the consequent larger
er of male deaths, makes the comparison appear more favourable
nale lives than is actually the case. The following table has been
uted on the assumption that the males and females in the com-
y are equal in number, as they soon would be if it were not for
cess of males yearly added to the population by immigration. It
l appear, however, from the table, that the extra proportion of
born does not counterbalance the extra number of male deaths :—

Year.	Male deaths.	Female deaths.	Computed male deaths, if male and female population were equal.	Excess of computed male over female deaths.	Excess of male over female births.
1887	7,776	5,672	6,410	738	566
1888	8,453	5,955	7,021	1,066	707
1889	8,674	6,122	7,245	1,123	1,375
1890	8,282	5,936	6,943	1,007	841
1891	9,558	6,728	8,064	1,336	1,314
1892	8,544	5,866	7,261	1,395	1,023
1893	9,289	6,733	7,937	1,204	1,302
1894	8,714	6,456	7,477	1,021	1,022
1895	8,671	6,243	7,478	1,235	980
1896	9,256	6,583	8,014	1,431	876
Total for ten years				11,556	10,006

The season of the year in which deaths are most numerous is the quarter ending March; but the number of deaths in the December quarter is nearly as great, and in some years has exceeded that of the first quarter. The deaths in 1891, chiefly owing to a visitation of epidemic influenza, were much more numerous than in 1892, when, compared with the population, they presented a lower rate than for any year since 1861. In 1895, however, the death-rate fell to a still lower figure, namely to 11·79 per thousand. Taking the ten years ended 1896, the deaths during each quarter of the year were :—

Year.	Quarter ending—			
	31 March.	30 June.	30 September.	31 December.
1887	3,980	3,362	2,805	3,301
1888	3,624	3,595	3,387	3,802
1889	4,101	3,728	3,158	3,809
1890	3,652	3,448	3,516	3,602
1891	3,758	3,535	3,601	5,392
1892	3,982	3,476	3,222	3,730
1893	3,710	3,616	3,859	4,837
1894	3,864	3,579	4,037	3,690
1895	3,478	3,536	3,781	4,119
1896	4,894	3,642	3,619	3,684

For the purpose of comparison, the obvious divisions of metropolitan and country districts suggest themselves, and the annual death-rate per thousand in each subdivision of the colony for the years 1887–96 is given in the subjoined table :—

Year.	Metropolis.	Country Districts.	New South Wales.
1887	17·52	11·48	13·38
1888	18·76	11·61	13·91
1889	18·03	11·83	13·87
1890	15·10	11·79	12·90
1891	16·48	13·09	14·24
1892	13·59	11·47	12·20
1893	15·57	12·01	13·24
1894	13·94	11·39	12·26
1895	13·18	11·11	11·79
1896	13·66	11·67	12·30
Mean.........	15·43	11·74	12·96

During the ten years the death-rate for the whole colony varied between 11·79 and 14·24—a range of 2·45 per thousand. In the metropolis, however, as will be seen below, the rate varied between 13·18 l 18·76, the range being 5·58 per thousand. In the country districts 11 was the lowest rate, and 13·09 the highest, 1·98 being the ge :—

Districts.	Per 1,000 of mean population.		
	Maximum.	Minimum.	Mean.
tropolis (Sydney and suburbs)	18·76	13·18	15·43
ntry districts	13·09	11·11	11·74
v South Wales	14·24	11·79	12·96

Taking the deaths of persons over 5 years of age during the last ten rs, the rates for the metropolitan district and the country are not y more favourable, but more equal than those for all persons :—

Districts.	Per 1,000 of mean population.		
	Maximum.	Minimum.	Mean.
tropolis (Sydney and suburbs)	11·38	8·86	9·86
ntry districts	9·61	8·27	8·58
v South Wales	10·00	8·51	9·01

Turning to deaths under 5 years, which may be generally termed the of infantile life, the chief factor of the excessive death-rate of the and suburbs will be found :—

Districts.	Per 1,000 of mean population.		
	Maximum.	Minimum.	Mean.
tropolis (Sydney and suburbs)	61·74	37·30	49·04
ntry districts	33·21	26·23	29·59
v South Wales	41·68	29·80	35·82

The lesson conveyed by the above table is a very striking one. The imum death-rate of infants in the metropolis exceeded the maximum of the country by 4·09 per thousand, and the mean rate of the country only three-fifths of the metropolitan. When the circumstances of in the country districts are considered, the distance sick persons are oved from the comforts, and even the necessaries which sickness ands, the full meaning of the low rate, both for adults and for dren, will best be understood. No more potent argument could be anced as to the natural salubrity of the colony than the statement he death-rates as recorded outside the walls of the metropolis.

All satisfaction, however, in regard to the low death-rate is confined to the country districts. So far as Sydney and its suburbs are concerned, there is no cause for congratulation; on the contrary, the rate at which children of tender years drop into the grave forms a pathetic commentary on the civilisation of the colony. Taking the whole period embraced in the table, the death-rate of children under 5 years was 52 per thousand in the metropolis. The following quinquennial table has been compiled in order to illustrate the gradual change which has taken place since 1871:—

Quinquennial period.	Metropolis.	Country Districts.	New South Wales.
	All ages.		
1871–75	20·91	12·77	14·99
1876–80	21·46	13·96	16·10
1881–85	20·77	13·46	15·70
1886–90	17·94	11·82	13·80
1891–95	14·53	11·79	12·72
1896	13·66	11·67	12·30
	Over 5 years.		
1871–75	12·72	9·25	10·21
1876–80	12·82	9·86	10·73
1881–85	12·56	9·50	11·40
1886–90	10·93	8·49	9·27
1891–95	9·50	8·63	8·92
1896	9·58	8·77	9·03
	Under 5 years.		
1871–75	66·28	30·55	39·78
1876–80	77·45	35·80	46·36
1881–85	73·35	35·99	46·63
1886–90	58·12	31·68	40·04
1891–95	45·32	29·78	34·58
1896	37·85	28·26	31·24

A remarkable improvement may be noticed in the death-rate of the metropolis, both for ages over and under 5 years. In the country the rate showed an increase during the second quinquennial period, particularly amongst infant lives. The third period is marked by a slight recovery, but this is quite eclipsed by the striking decline in the death-rate of 1886–90. In the last quinquennial period, for 1891–95, the general rate for the country districts showed a further slight decline; but this was due to the proportionately smaller number of deaths amongst children under 5 years, the death-rate of persons over that age being slightly higher than in the previous quinquennium. The following table shows the mortality in the metropolitan and country districts during ten years; the figures for previous years will be found in earlier editions of this book. In the first part of the table will be found the actual number of deaths, and in the second the proportion of eaths of children under 5 years and of persons over that age, as ompared with the population :—

Year.	Children under 5 years.			Persons over 5 years.		
	Metropolis.	Country.	N.S.W.	Metropolis.	Country.	N.S.W.
			Number of Deaths.			
1887	2,598	3,022	5,620	2,948	4,880	7,828
1888	3,035	3,172	6,207	3,223	4,978	8,201
1889	3,239	3,284	6,523	3,099	5,174	8,273
1890	2,498	3,278	5,776	3,093	5,349	8,442
1891	2,821	3,689	6,510	3,599	6,177	9,776
1892	2,446	3,381	5,827	3,066	5,517	8,583
1893	3,157	3,915	7,072	3,327	5,623	8,950
1894	2,448	3,465	5,913	3,440	5,817	9,257
1895	2,238	3,310	5,548	3,247	6,119	9,366
1896	2,234	3,691	5,925	3,355	6,559	9,914
			Per 1,000 of Population.			
1887	54·94	30·82	38·66	10·95	8·27	9·11
1888	60·19	31·33	40·92	11·38	8·28	9·28
1889	61·74	31·56	41·68	10·36	8·47	9·09
1890	45·85	30·83	35·92	9·79	8·55	8·97
1891	50·89	33·21	39·10	10·77	9·61	10·00
1892	41·20	29·74	33·69	8·86	8·33	8·51
1893	52·58	33·07	39·64	9·34	8·32	8·67
1894	40·74	28·31	32·40	9·50	8·40	8·77
1895	37·30	26·23	29·80	9·12	8·47	8·68
1896	37·85	28·26	31·24	9·58	8·77	9·03
Mean......	49·04	29·59	35·82	9·86	8·58	9·01

The following table gives the number of children under 1 year lying in the metropolis and country, and the proportion per thousand irths. This latter approximately represents the proportion of children who died within a year after birth :—

Year.	Metropolis.		Country Districts.		New South Wales.	
	Deaths under 1.	Per 1,000 births.	Deaths under 1.	Per 1,000 births.	Deaths under 1.	Per 1,000 births.
1887	1,890	140·8	2,055	86·3	3,945	105·9
1888	2,084	152·0	2,187	88·1	4,271	110·9
1889	2,301	172·4	2,371	99·0	4,672	125·3
1890	1,823	155·4	2,249	88·4	4,072	104·5
1891	2,075	148·1	2,616	102·8	4,691	118·9
1892	1,832	130·2	2,413	92·9	4,245	106·0
1893	2,048	146·7	2,592	98·2	4,640	115·0
1894	1,765	132·0	2,483	97·0	4,248	109·1
1895	1,669	130·8	2,437	93·7	4,106	105·9
1896	1,710	139·0	2,725	112·6	4,435	121·5
Mean......	....	143·0	....	95·8	....	112·2

A more precise classification of the ages of the 4,435 children un year, who died in 1896, is shown in the following table :—

Ages.	Metropolis.	Country.	New South Wales.
Under 1 month	452	798	1,250
1 month	167	253	420
2 months	173	227	400
3 ,,	148	251	399
4 ,,	131	218	349
5 ,,	106	200	306
6 ,,	134	181	315
7 ,,	84	157	241
8 ,,	99	142	241
9 ,,	79	109	188
10 ,,	81	103	184
11 ,,	56	86	142
Total	1,710	2,725	4,435

The experience of the United Kingdom shows that infant mor is always higher in large towns than in the country districts. experience of this colony is somewhat similar. But though the ditions of life in England are more favourable in the country dis than in the towns, the same is not necessarily the case here. In sp scattered communities, such as the country districts of New South mainly comprise, it is frequently impossible to obtain for childr tender years articles which in towns are considered, and rightl almost necessaries of life. Were it not, therefore, for the conta which seem incidental to towns, the death-rate of children naturally be expected to be, so far as this colony is concerned, h in the country than in the city. That such is not the case is ev from the foregoing table. But compared with the rates of i mortality in the other colonies, and in England and France, th New South Wales seem very favourable, as will be seen on refe to the following table, which gives the mean annual rates calculat a period of ten years ended 1896 :—

Country.	Deaths of children under 1 year per 1,000 births.	Country.	Death children 1 year p birt
New South Wales	112·2	Tasmania	9
Sydney and suburbs	143·0	New Zealand	8
Country districts	95·8	England and Wales	*14
Victoria	119·0	London	*15
Queensland	108·8	Scotland	*11
South Australia	99·3	France	*16
Western Australia	132·8		

* 10 years ended 1895.

The general salubrity of the colony may be taken as well establi and if the deaths in Sydney and suburbs, especially amongst children, were not relatively more numerous than those in the rest of the colony, New South Wales would have no need to fear comparison with any country.

The comparatively high death-rates of Sydney certainly do not arise from natural causes. Seated on the hilly shores of Port Jackson, its situation is all that could be desired, and the configuration of the ground on which it stands is especially adapted to the requirements of a perfect drainage system. What Nature with lavish hand had bestowed, was, however, until recently, in danger of being destroyed or polluted; for looking through the causes of death the conclusion is inevitable that no small part of the mortality of Sydney and its suburbs arose, primarily or indirectly, from diseases which sanitary precautions might have averted.

With the exception of Hobart and Wellington, there is not much difference in the mean annual death-rates of the capitals of the Australasian colonies. The rates for a single year, however, do not present such uniformity, as will be seen by the following figures for 1896:—Perth, 20·65; Hobart, 16·17; Melbourne, 15·81; Adelaide, 14·66; Brisbane, 14·17; Sydney, 13·66; and Wellington, 10·97. Of course the suburbs of the various cities are included in these calculations. Compared with cities in other parts of the world, the result is generally favourable to Australasia. The following table shows the mean death-rate of the chief Australasian, European, and American cities for a period of years:—

	Annual Death-rate.		Annual Death-rate.		Annual Death-rate.
		Australasia.			
Hobart	21·45	Brisbane	17·17	Sydney	15·43
Perth	20·72	Adelaide	15·47	Wellington	14·20
Melbourne	18·88				
		United Kingdom.			
Dublin	27·10	Plymouth	22·30	Birmingham	19·80
Liverpool	26·70	Newcastle	21·80	Portsmouth	19·70
Cork	26·10	Sheffield	21·60	Bristol	19·60
Manchester	25·50	London	21·10	Brighton	19·00
Glasgow	25·30	Edinburgh	20·20		
		Continental Europe.			
St. Petersburg	51·40	Paris	28·60	Amsterdam	23·70
Madrid	37·40	Berlin	27·60	Rotterdam	23·30
Buda-Pesth	35·20	Rome	26·80	Venice	22·70
Munich	32·80	Cologne	26·20	The Hague	22·40
Breslau	32·50	Leipsic	26·10	Copenhagen	22·10
Prague	32·30	Stockholm	24·70	Geneva	21·20
Milan	30·60	Hamburg	24·50	Christiania	18·80
Vienna	29·00	Brussels	23·90		
		America.			
Montreal	37·20	New Orleans	22·70	Philadelphia	20·30
New York	26·20	Toronto	21·50	St. Louis	19·30
Brooklyn	25·60	Baltimore	21·10	San Francisco	18·10
Boston	23·50				

This list is fairly representative, and largely as the rate for Sy is swollen by the deaths of children of tender years, whose lives are needlessly sacrificed, the comparison is satisfactory.

The following table shows the numbers of deaths at all ages du the year 1896 :—

Age Groups.	Males.	Females.	Total
Under 3 months	1,145	925	2,070
3 months and under 6	566	488	1,054
6 ,, ,, 12	713	598	1,311
1 year	468	421	889
2 years	141	159	300
3 ,,	77	89	166
4 ,,	65	70	135
5 years and under 10	225	194	419
10 ,, ,, 15	160	114	274
15 ,, ,, 20	247	207	454
20 years	52	53	105
21 years and under 25	216	214	430
25 ,, ,, 30	309	290	599
30 ,, ,, 35	377	241	618
35 ,, ,, 40	410	298	708
40 ,, ,, 45	415	226	641
45 ,, ,, 50	427	215	642
50 ,, ,, 55	460	236	696
55 ,, ,, 60	469	255	724
60 ,, ,, 65	562	276	838
65 ,, ,, 70	504	234	739
70 ,, ,, 75	409	250	659
75 ,, ,, 80	393	248	641
80 ,, ,, 85	262	153	415
85 ,, ,, 90	127	91	218
90 ,, ,, 95	34	27	61
95 ,, ,, 100	14	9	23
100 years and upwards	3	2	5
Not stated (adults)	5	……	5
Total	9,256	6,583	15,839

The number of persons of the age of 70 years and upwards who d during the year was 2,022, and of these 1,242 were males and 780 femal There were 1,300 between the ages of 70 and 80 years ; 633 betw 80 and 90 years ; 84 between 90 and 100 years ; and 5 centenaria One male, aged 100, died at Blayney ; another, aged 100, at Hillgro and one, aged 104, at Picton. One female, aged 102, died at Narral and another, aged 102, at Young. The birthplace of the first n mentioned was England, while the other two males, and both fema were born in Ireland.

The next table gives the average age at death of all persons dying in the colony during the last ten years, together with the average age of those who were over 5 years of age:—

Year.	Males.		Females.	
	All Ages.	Over 5 years.	All Ages.	Over 5 years.
1887	29·33	46·95	24·31	44·53
1888	29·44	48·11	23·42	44·01
1889	29·32	48·33	23·07	44·83
1890	30·08	47·62	25·48	45·52
1891	31·50	49·58	27·08	45·90
1892	30·26	48·03	24·69	43·89
1893	28·62	49·01	23·98	45·10
1894	32·76	51·03	28·56	48·76
1895	33·49	50·55	28·02	46·91
1896	33·34	50·30	27·88	47·19
Mean of 10 years...	30·81	48·95	25·65	45·66

The birthplaces of the 61,945 persons who died in New South Wales during the four years 1893–6, are shown in the following table:—

Birthplaces.	Males.	Females.	Total.
Australasian Colonies—			
New South Wales	19,100	17,068	36,168
Victoria	752	546	1,298
Queensland	182	163	345
South Australia	305	248	553
Western Australia	8	6	14
Tasmania	158	111	269
New Zealand	118	101	219
Total	20,023	18,243	38,866
United Kingdom			
England	6,909	3,443	10,352
Wales	248	89	337
Scotland	1,812	848	2,660
Ireland	3,605	2,884	6,489
Total	12,574	7,264	19,838
Other British Possessions			
India	86	40	126
African Possessions	28	17	45
North American Possessions	75	11	86
West Indies	38	10	48
Other Possessions	40	14	54
Total	267	92	359
European Countries and Dependencies—			
German Empire	569	201	770
France	129	25	154
Austria-Hungary	35	4	39
Russia	55	9	64
Italy	68	5	73
Sweden and Norway	201	6	207
Other Countries	239	30	269
Total	1,296	280	1,576
Other Foreign Countries			
China	530	1	531
Other Asiatic Countries	12	..	12
African Countries	5	..	5
United States	181	32	213
South American Countries	11	3	14
Polynesia	40	6	46
Total	779	42	821
Born at Sea	39	42	81
Birthplace not stated	352	52	404
Total	35,930	26,015	61,945

Of these 61,945 persons, 38,866 were natives of Australasia, and it will be seen that in 404 cases the birthplace of the deceased was not stated. Of the remaining 22,675 persons, information was supplied respecting the length of residence in Australasia of 21,409, and from the particulars given, the following table has been compiled :—

Length of Residence in Australasian Colonies.	Males.			Females.			Total Males and Females.
	Under 21 years	Adults.	Total.	Under 21 years	Adults.	Total.	
Under 1 year	32	189	221	19	39	58	279
1 year and under 5......	35	436	471	24	161	185	656
5 years and under 10	36	863	899	54	447	501	1,400
10 ,, ,, 15......	44	1,294	1,338	44	594	638	1,976
15 ,, ,, 20......	18	1,011	1,029	11	437	448	1,477
20 years and upwards......	...	9,948	9,948	...	5,673	5,673	15,621
Total	165	13,741	13,906	152	7,351	7,503	21,409

Amongst the persons whose term of residence is set down as 20 years and upwards, are included a native of England who had resided in the Australasian colonies for 90 years; three natives of England who had been living in the colonies for 80 years; a native of Wales who had been living in the colonies for 85 years; a native of Scotland who had arrived 84 years ago; and six natives of Ireland of whom one had lived in the colonies for 88 years, one for 84 years, and two each for 83 and 80 years respectively. Of the 2,397 persons born in foreign countries who died in New South Wales during the four years 1893–6, sixteen had lived in the colonies for more than sixty years.

The average number of children born to each married couple has been given on a previous page of this chapter. A further tabulation has been made with the object of showing the average number of children who survive their parents in families of various sizes. It will be seen from the subjoined table that in every group the number of children surviving their fathers appears larger than the number surviving their mothers. This is due to the more frequent re-marriages of fathers, the children resulting from all marriages being included in the table :—

Number of Children in Family.	Number of Children out of 100 Families who will survive—	
	their Father.	their Mother.
1	87	82
2	166	157
3	241	231
4	320	304
5	388	381
6	468	449
7	542	525
8	615	593
9	681	659
10	746	704
11	824	795
12	873	826
13	941	832
14	962	885
15	1,036	989
16 and more	1,055	907

The average number of children who survive one of their parents is four.

CAUSES OF DEATH.

The system of classifying causes of death proposed by the late Dr. William Farr, F.R.S., in conjunction with Dr. Marc d'Espine, which was in vogue in the United Kingdom and the colonies for over a quarter of a century, has within the last few years been abandoned in favour of one arranged by Dr. William Ogle, Dr. Farr's successor at the General Register Office, London, upon the basis of a mode of classification determined upon by a committee appointed by the Royal College of Physicians, London; and whilst the latter system includes a few important deviations from the former, the changes on the whole are in the direction of amplification, so that the admirable system of Dr. Farr still forms the groundwork of the new classification.

The number of deaths in New South Wales from each cause during the year 1896 is here given, together with the proportion which each class bears to the total :—

Class.	Causes of Death.	Under 5 Years.		5 Years and Over.		Total.	Proportion per cent.
		Male.	Female.	Male.	Female.		
I.	Specific febrile or zymotic diseases	601	611	594	480	2,286	14·43
II.	Parasitic diseases	8	9	27	29	73	0·46
III.	Dietetic diseases	38	35	109	30	212	1·34
IV.	Constitutional diseases	156	158	1,088	841	2,243	14·16
V.	Developmental diseases	342	265	537	348	1,492	9·42
VI.	Local diseases	1,447	1,218	2,776	1,882	7,323	46·24
VII.	Violence	141	107	922	197	1,367	8·63
VIII.	Ill-defined and not specified causes	442	347	28	26	843	5·32
	All causes	3,175	2,750	6,081	3,833	15,839	100·00

Class I.—Specific Febrile or Zymotic Diseases.

Order 1. *Miasmatic Diseases.*—Chicken-pox, 3 ; measles, 4 ; scarlet fever, 48 ; influenza, 202 ; whooping-cough, 100 ; diphtheria, 168 ; cerebro-spinal fever, 3 ; simple continued fever, 5 ; typhoid, enteric fever, 509.

Order 2. *Diarrhœal Diseases.*—Cholera, cholera infantum, 99 ; diarrhœa, 829 ; dysentery, 92.

Order 3. *Malarial Diseases.*—Remittent fever, 3 ; intermittent fever, ague, 6 ; beri beri, 3.

Order 4. *Zoogenous Diseases.*—Splenic fever, 1.

Order 5. *Venereal Diseases.*—Syphilis (including congenital), 54 ; stricture of urethra, 5.

Order 6. *Septic Diseases.*—Phagedæna, 1 ; erysipelas, 27 ; pyæmia, septicæmia, 43 ; puerperal fever, 81.

Class II.—Parasitic Diseases.

Thrush, 16 ; hydatid disease, 56 ; worms, 1.

Class III.—Dietetic Diseases.

Starvation, privation, 23 ; want of breast milk, 68 ; scurvy, 4 ; intemperance—(*a*) chronic alcoholism, 86 ; (*b*) delirium tremens, 29 ; (*c*) opium smoking, 1 ; surfeit (over-eating), 1.

Class IV.—Constitutional Diseases.

Rheumatic fever, rheumatism of heart, 62 ; rheumatism, 35 ; gout, 17 ; rickets, 18 ; cancer, 621 ; tabes mesenterica, 176 ; tubercular meningitis (acute hydrocephalus), 108 ; phthisis, 1,027 ; other forms of tuberculosis, scrofula, 69 ; purpura, hæmorrhagic diathesis, 8 ; anæmia, chlorosis, leucocythæmia, 57 ; diabetes mellitus, 39 ; leprosy, 6.

Class V.—Developmental Diseases.

Premature birth, 453 ; atelectasis, 50 ; cyanosis, 48 ; spina bifida, 19 ; imperforate anus, 7 ; cleft palate, harelip, 8 ; other congenital defects, 25 ; old age, 882.

Class VI.—Local Diseases.

Order 1. *Diseases of the Nervous System.*—Inflammation of the brain or its membranes, 189 ; apoplexy, 303 ; softening of the brain, 35 ; hemiplegia, brain paralysis, 161; paralysis agitans, 22; insanity, general paralysis of the insane, 83; chorea, 2; epilepsy, 97; convulsions, 584; laryngismus stridulus, 7; idiopathic tetanus, 13; paraplegia, disease of the spinal cord, 76; congestion of brain, 40; others, and brain diseases (undefined), 41.

Order 2. *Diseases of the Organs of Special Sense.*—Otitis, otorrhœa, disease of the ear, 7; epistaxis, disease of the nose, 3; ophthalmia, disease of the eye, 8.

Order 3. *Diseases of the Circulatory System.*—Endocarditis, valvular disease, 284; pericarditis, 67; hypertrophy of heart, 5; angina pectoris, 26; syncope, 140; aneurism, 76; senile gangrene, 35; embolism, thrombosis, 28; phlebitis, 6; varicose veins, 2; heart disease (undefined), 365.

Order 4. *Diseases of the Respiratory System.*—Laryngitis, 36; croup, 79; other diseases of larynx and trachea, 21; asthma, emphysema, 105; bronchitis, 571; pneumonia, 828; congestion of the lungs, 84; pleurisy, 139; others, and lung disease (undefined), 32.

Order 5. *Diseases of the Digestive System.*—Stomatitis, 9; dentition, 49; sore throat, quinsy, 10; dyspepsia, 38; hæmatemesis, 5; melæna, 6; diseases of the stomach, 86; enteritis, 935; ulceration of intestine, 83; ileus, obstruction of intestine, 89; stricture or strangulation of intestine, 9; intussusception of intestine, 31; hernia, 40; fistula, 5; peritonitis, 137; ascites, 17; gallstones, 19; cirrhosis of liver, 96; hepatitis, 33; jaundice, 54; congestion of liver, 20; other diseases of liver, 55; other diseases of digestive system, 12.

Order 6. *Diseases of the Lymphatic System and Ductless Glands.*—Diseases of lymphatic system, 6; diseases of spleen, 4; bronchocele, 1; Addison's disease, 8.

Order 7. *Diseases of the Urinary System.*—Acute Nephritis, 82; Bright's disease, 293; uræmia, 59; suppression of urine, 8; calculus, 10; haematuria, 8; diseases of bladder and of prostate, 95; others, and kidney disease (undefined), 19.

Order 8. *Diseases of the Organs of Generation.*—Ovarian disease, 19; diseases of uterus and vagina, 14; disorders of menstruation, 4; pelvic abscess, 3; perineal abscess, 1; diseases of testes, penis, scrotum, 3.

Order 9. *Diseases of Parturition.*—Abortion, 11; miscarriage, 27; puerperal mania, 5; puerperal convulsions, 27; placenta prævia, flooding, 36; phlegmasia dolens, 1; other casualties of childbirth, 61.

Order 10. *Diseases of the Organs of Locomotion.*—Caries, necrosis, 16; arthritis, ostitis, periostitis, 7; joint disease, 8; curvature of spine, 2.

Order 11. *Diseases of the Integumentary System.*—Carbuncle, 6; phlegmon, cellulitis, 8; lupus, 4; ulcer, bed sores, 4; eczema, 14; pemphigus, 5; dermatitis, etc., 6.

Class VII.—Violence.

Order 1. *Accident or Negligence.*—Fractures and contusions, 399; gunshot wounds, 17; cuts (tetanus), 25; burns, 114; scalds, 25; sunstroke, 253; lightning, 5; poison, 20; bite of snake or insect, 5; drowning, 166; suffocation, 51; injury at birth, 10; umbilical hæmorrhage, 12; blood-poisoning, 10; collapse under chloroform, 4; boiler explosion, 2; explosion of chemicals, 1; dynamite explosion, 11; explosion of coal-gas, 1; bitten by shark, 1; injury by bullock, 1; drinking water whilst heated, 1; eating unripe fruit, 1.

Order 2. *Homicide.*—Murder, 33; manslaughter, 9; justifiable homicide, 1.

Order 3. *Suicide.*—Gunshot wounds, 40; cut, stab, 20; poison, 36; drowning, 50; hanging, 29; jumping from a height, 3; dynamite, 1; going in front of railway engine, 3.

Order 4. *Execution.*—Judicial Hanging, 1.

Order 5. *Violent Deaths not classed.*—Found drowned, 6.

Class VIII.—Ill-defined and not Specified Causes.

Dropsy, 42; atrophy, debility, inanition, 784; mortification, 1; tumour, 2; abscess, 1; other ill-defined and not specified causes, 13.

Males, 9,256; Females, 6,583. Total, 15,839.

From the foregoing it will be seen that, leaving accidental deaths out of consideration, the number of deaths from phthisis in the colony during 1896 was greater than that from any other disease. The mortality from this cause was, however, lower than the average rate of the preceding ten years, the expected number of deaths being 1,185, as against an actual experience of 1,027. The fatal cases of cancer were, on the contrary, 621, as against an expectation of 513 based on the experience of the preceding decade, but the rate in New South Wales during the period 1887–96 was only 0·412 per thousand of population, as compared with 0·672 in England and Wales during the period 1886–95.

The following are the principal causes of death, arranged in order of fatality:—

	Number of deaths.		Number of deaths.
Accidents	1,135	Dysentery	92
Phthisis	1,027	Ileus, obstruction of intestine	89
Enteritis	935	Diseases of stomach	86
Old age	882	Congestion of the lungs	84
Diarrhœa	829	Ulceration of intestine	83
Pneumonia	828	Insanity, general paralysis of the insane	83
Atrophy, debility, inanition (infants)	784	Croup	79
Cancer	621	Aneurism	76
Heart disease (exclusive of endocarditis, pericarditis, and aneurism)	607	Paraplegia, diseases of spinal cord	76
Convulsions	584	Tuberculosis, scrofula	69
Bronchitis	571	Want of breast milk	68
Typhoid, enteric fever	509	Rheumatic fever and rheumatism of heart	62
Premature birth	453	Anæmia, chlorosis, leucocythæmia	57
Endocarditis and pericarditis	351	Hydatids	56
Apoplexy	303	Syphilis (including congenital)	54
Bright's disease	293	Dentition	49
Diseases of the urinary system (exclusive of Bright's disease)	281	Scarlet fever	48
Liver diseases	258	Pyæmia, septicæmia	43
Childbirth and puerperal fever	249	Dropsy	42
Influenza	202	Congestion of brain	40
Inflammation of the brain and its membranes	189	Hernia	40
Suicide	182	Diabetes mellitus	39
Tabes mesenterica	176	Dyspepsia	38
Diphtheria	168	Laryngitis	36
Hemiplegia, brain paralysis	161	Rheumatism	35
Malformations (atelectasis, cyanosis, spina bifida, &c.)	157	Softening of the brain	35
Pleurisy	139	Murder	33
Peritonitis	137	Lung disease (undefined)	32
Intemperance	117	Intussusception of intestine	31
Tubercular meningitis (acute hydrocephalus)	108	Erysipelas	27
Asthma, emphysema	105	Privation, starvation	23
Whooping-cough	100	Paralysis agitans	22
Cholera, cholera infantum	99	Gall-stones	19
Epilepsy	97	Ovarian disease	19
		Rickets	18
		Gout	17
		Ascites	17
		Thrush	16
		Caries, necrosis	16

Below will be found a comparison of the deaths due to each class of disease during the eight years ended 1896:—

Causes of Death.	1889.			1890.			1891.			1892.		
	Deaths.	Percentage.	Per 1,000 living.	Deaths.	Percentage.	Per 1,000 living.	Deaths.	Percentage.	Per 1,000 living.	Deaths.	Percentage.	Per 1,000 living.
Specific febrile, or zymotic diseases.	2,497	16·88	2·34	2,022	14·22	1·84	2,917	17·91	2·55	2,022	14·03	1·71
Parasitic diseases..	68	0·46	0·06	71	0·50	0·06	55	0·34	0·05	66	0·46	0·06
Dietetic diseases ..	289	1·95	0·27	235	1·65	0·21	212	1·30	0·19	204	1·42	0·17
Constitutional diseases	2,018	13·64	1·89	1,988	13·98	1·80	2,141	13·15	1·87	2,064	14·32	1·75
Developmental diseases	1,277	8·63	1·20	1,322	9·30	1·20	1,489	9·14	1·30	1,347	9·35	1·14
Local diseases	6,615	44·71	6·20	6,587	46·33	5·98	7,301	44·83	6·38	6,527	45·29	5·52
Violence	1,110	7·50	1·04	1,163	8·18	1·06	1,165	7·15	1·02	1,153	8·00	0·98
Ill-defined and not specified causes..	922	6·23	0·86	830	5·84	0·75	1,006	6·18	0·88	1,027	7·13	0·87
Total	14,796	100·00	13·86	14,218	100·00	12·90	16,286	100·00	14·24	14,410	100·00	12·20

Causes of Death.	1893.			1894.			1895.			1896.		
	Deaths.	Percentage.	Per 1,000 living.	Deaths.	Percentage.	Per 1,000 living.	Deaths.	Percentage.	Per 1,000 living.	Deaths.	Percentage.	Per 1,000 living.
Specific febrile, or zymotic diseases.	2,891	18·05	2·39	2,622	17·28	2·12	2,228	14·94	1·76	2,286	14·43	1·78
Parasitic diseases..	87	0·54	0·07	74	0·49	0·06	69	0·46	0·06	73	0·46	0·06
Dietetic diseases ..	132	0·82	0·11	166	1·10	0·13	199	1·34	0·16	212	1·34	0·16
Constitutional diseases	2,143	13·38	1·77	2,135	14·08	1·73	2,180	14·62	1·72	2,243	14·16	1·74
Developmental diseases	1,449	9·04	1·20	1,419	9·35	1·15	1,480	9·92	1·17	1,492	9·42	1·16
Local diseases	7,203	44·96	5·95	6,841	45·10	5·53	6,896	46·24	5·45	7,323	46·24	5·69
Violence	1,133	7·07	0·94	1,094	7·20	0·88	1,128	7·56	0·89	1,367	8·63	1·06
Ill-defined and not specified causes..	984	6·14	0·81	819	5·40	0·66	734	4·92	0·58	843	5·32	0·65
Total	16,022	100·00	13·24	15,170	100·00	12·26	14,914	100·00	11·79	15,839	100·00	12·30

DEATHS FROM CANCER.

The diseases which deserve special mention, although they are not exactly the three which claim most victims in the course of the year, are cancer, phthisis, and heart disease. During the year 1896 there were 621 fatal cases of cancer, as compared with 556 in the preceding year, and 516 in 1894.

For a number of years deaths from cancer have been more numerous among males than among females; thus in 1894, 308 male and 208 female deaths; in 1895, 311 male and 245 female deaths; and in 1896, 327 male and 294 female deaths. The ages of the 621 persons who died in 1896 ranged from less than 10 to over 90 years. Of the total number, 168 were born in Australasia; while of the remainder, 348 had been resident in the colonies for 20 years or more; 39, between 15 and 20 years; 37, between 10 and 15 years; 17, between 5 and 10 years; 3, for 4 years; 2 for 3 years; 1, for 2 years; 1, for 1 year; and 5 for less than 1 year.

It would seem that cases of cancer are increasing in New South Wales much faster than might be expected from the actual increase in population. All fatal cases have been recorded since 1856, and during the interval the proportion per thousand of the population has practically trebled. For the five years, 1856–60, the proportion was 0·14 per thousand, while in 1892–96 it was 0·44 per thousand. Possibly the more skilful diagnosis of late years, especially of internal cancer, may account for part of the increase; but when every allowance has been made on this score, it will be found that the spread of cancer is a dread reality, demanding very serious attention. The following table shows the deaths since 1856, with the proportion per thousand of population :—

Year.	Deaths.	Per 1,000 of Population.	Year.	Deaths.	Per 1,000 of Population.	Year.	Deaths.	Per 1,000 of Population.
1856	32	0·14	1870	113	0·23	1884	233	0·26
1857	38	0·13	1871	127	0·25	1885	267	0·29
1858	37	0·11	1872	149	0·28	1886	333	0·34
1859	48	0·14	1873	159	0·29	1887	354	0·35
1860	60	0·18	1874	156	0·28	1888	404	0·39
1861	68	0·19	1875	181	0·31	1889	393	0·37
1862	73	0·20	1876	166	0·27	1890	392	0·35
1863	76	0·20	1877	167	0·27	1891	516	0·45
1864	83	0·22	1878	191	0·29	1892	510	0·43
1865	88	0·22	1879	171	0·25	1893	489	0·40
1866	105	0·25	1880	239	0·33	1894	516	0·42
1867	112	0·26	1881	216	0·28	1895	556	0·44
1868	118	0·26	1882	215	0·27	1896	621	0·48
1869	119	0·25	1883	215	0·26			

DEATHS FROM PHTHISIS.

The 1,027 deaths from phthisis which occurred during 1896 included 613 males and 414 females, whose ages are shown in the following table :—

Age Groups.	Deaths.	Age Groups.	Deaths.	Age Groups.	Deaths.
Under 1 year	4	14 years..............	6	30 years and under 35	147
1 year	4	15 ,, ...	4	35 ,, ,, 40	146
2 years	1	16 ,, ...	13	40 ,, ,, 45	99
3 ,, ...	2	17 ,, ...	8	45 ,, ,, 50	76
4 ,, ...	1	18 ,, ...	15	50 ,, ,, 55	67
7 ,, ...	1	19 ,, ...	19	55 ,, ,, 60	50
8 ,, ...	3	20 ,, ...	27	60 ,, ,, 65	51
9 ,, ...	4	21 ,, ...	24	65 ,, ,, 70	20
10 ,, ...	1	22 ,, ...	23	70 ,, ,, 75	12
11 ,, ...	1	23 ,, ...	22	78 ,, ...	2
12 ,, ...	1	24 ,, ...	26		
13 ,, ...	5	25 years and under 30	142	Total	1,027

The Australian climate is certainly favourable to persons suffering from pulmonary diseases, and a considerable number of persons suffering from phthisis visit Australia in search of relief. Many of these are in the last stages of the disease, and succumb after a short residence in the colony. It may be said that during those years for which information is available, about 6½ per cent. of the fatal cases of consumption were those of persons whose residence in Australia had not exceeded five years. The figures for the year 1896 show that out of the 1,027 persons who died from phthisis, 539 were natives of Australasia; and 206 were persons who had resided in the colonies for 20 years and upwards; 60, for 15 years and under 20; 111, for 10 years and under 15; and 71, for 5 years and under 10; while 9 persons died of phthisis during the fifth year of their sojourn in the colonies; 4 during the fourth year; 6 during the third year; 10 during the second year; and 11 during the first year.

DEATHS FROM HEART DISEASE.

Deaths from heart disease numbered 1,034 during the year 1896, viz.:—657 males and 377 females. Their ages are shown below :—

Age Groups.	Deaths.	Age Groups.	Deaths.	Age Groups.	Deaths.
Under 1 year	24	16 years..............	3	50 years and under 55	96
1 year	1	17 ,, ...	10	55 ,, ,, 60	120
3 years	1	18 ,, ...	6	60 ,, ,, 65	142
4 ,, ...	1	19 ,, ...	1	65 ,, ,, 70	115
5 ,, ...	1	20 ,, ...	4	70 ,, ,, 75	78
6 ,, ...	1	21 ,, ...	3	75 ,, ,, 80	69
7 ,, ...	2	22 ,, ...	5	80 ,, ,, 85	30
8 ,, ...	1	23 ,, ...	5	85 ,, ,, 90	9
10 ,, ...	3	24 ,, ...	3	90 ,, ...	7
11 ,, ...	7	25 years and under 30	33	96 ,, ...	1
12 ,, ...	3	30 ,, ,, 35	36		
13 ,, ...	2	35 ,, ,, 40	57	Total	1,034
14 ,, ...	7	40 ,, ,, 45	60		
15 ,, ...	7	45 ,, ,, 50	80		

The number of new arrivals among the 1,034 persons enumerated in the preceding table was small. Seven persons died during the first year of residence in Australasia; 2 during the second year; 4 during the third year; 6 during the fourth year; and 3 during the fifth year; 22 persons had been residing in the colonies from 5 to 10 years; 56 from 10 to 15 years; 61 from 15 to 20 years; and 559 persons 20 years and upwards. Of 11 persons the length of residence was not known, and 303 were natives of Australasia.

DISEASES OF NERVOUS SYSTEM.

A good deal is heard from time to time of the unhappy effects which our increasing civilisation has upon the health of the community, and of the large increase of diseases of the nerves and brain. The statistics of deaths show quite the contrary. Apoplexy, epilepsy, and other diseases of the nervous system do not now show so many fatal cases as formerly in proportion to the population. This will readily be seen from the following table, which covers the whole period during which registration has been in force:—

Year.	Deaths.	Per 1,000 of population.	Year.	Deaths.	Per 1,000 of population.	Year.	Deaths.	Per 1,000 of population.
1856	489	2·08	1870	947	1·93	1884	1,803	2·04
1857	792	2·67	1871	984	1·94	1885	1,940	2·09
1858	930	2·87	1872	1,145	2·17	1886	1,800	1·86
1859	868	2·56	1873	1,180	2·17	1887	1,675	1·67
1860	884	2·58	1874	1,265	2·24	1888	1,692	1·63
1861	736	2·08	1875	1,307	2·24	1889	1,671	1·57
1862	916	2·53	1876	1,293	2·14	1890	1,594	1·45
1863	866	2·33	1877	1,245	1·98	1891	1,691	1·48
1864	855	2·22	1878	1,427	2·17	1892	1,580	1·34
1865	822	2·05	1879	1,380	2·00	1893	1,836	1·52
1866	905	2·16	1880	1,499	2·06	1894	1,592	1·29
1867	1,025	2·35	1881	1,541	2·01	1895	1,557	1·23
1868	1,023	2·25	1882	1,644	2·06	1896	1,653	1·28
1869	943	2·00	1883	1,594	1·90			

ACCIDENTS.

Accidental deaths are very numerous, especially in the country. The number registered during 1896 was 1,135, or 234 in the metropolis and 901 in the country districts. The numbers for 1895 were 206 and 695 respectively. The large increase shown in 1896 over the figures for every year of the preceding decade is due to the abnormally large number of fatal cases of sunstroke and heat apoplexy which occurred at the beginning of the year. The number of fatal accidents in the colony during each of the years 1890 to 1896 inclusive was as follows:—

	1890.	1891.	1892.	1893.	1894.	1895.	1896.
Sydney and suburbs.........	214	258	215	212	226	206	234
Country	758	685	726	659	638	695	901
Total	972	943	941	871	864	901	1,135

In the following table a more detailed account will be found of the various fatal accidents during the last ten years :—

Year.	Fractures, Contusions.	Gunshot Wounds.	Cuts, etc.	Burns, Scalds.	Sunstroke.	Lightning.	Poison.	Bite of Snake or Insect.	Drowning.	Suffocation.	Otherwise.	All cases.		
												M.	F.	Total
1887	352	11	18	93	24	2	16	3	228	129	27	727	176	903
1888	396	28	22	133	37	5	15	5	176	42	41	713	187	900
1889	417	15	13	101	29	7	24	4	204	54	37	713	192	905
1890	394	16	9	103	17	6	21	10	319	37	40	770	202	972
1891	406	15	11	119	13	4	26	5	251	52	41	780	163	943
1892	405	31	18	103	25	2	20	4	254	44	35	734	207	941
1893	334	23	17	123	14	1	34	8	232	42	43	669	202	871
1894	348	19	28	143	15	2	23	3	206	38	39	646	218	864
1895	384	24	23	154	14	2	29	10	176	41	44	707	194	901
1896	399	17	25	139	253	5	20	5	166	51	55	873	262	1,135
Total...	3,835	199	184	1,211	441	36	228	57	2,212	530	402	7,332	2,003	9,335

The average annual rate of accidents during the ten years 1887 to 1896 has been 81 per 100,000 of the population. This, although much lower than in Queensland and Western Australia, is higher than in the other colonies, or in any country whose records are available for comparison, as will be seen from the following statement :—

New South Wales	81	Switzerland	69
Victoria	79	Italy	15
Queensland	126	Germany.......................	42
South Australia	59	Prussia	41
Western Australia............	118	Austria	31
Tasmania	73	Hungary........................	34
New Zealand	76	Belgium	39
England and Wales	56	Norway	64
Scotland	68	Sweden	51
Ireland	35	Russia	46
France	34	United States	62
Spain	21	Denmark	23

SUICIDES.

The number of suicides registered in New South Wales during the ten years 1887-96, and the various modes adopted for the taking of life, were as follow:—

Year.	Shooting.		Cut, Stab, etc.		Poison.		Drowning.		Hanging.		Other Modes.		All cases.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total
1887	22	...	14	1	17	11	14	7	26	4	4	1	97	24	121
1888	29	...	18	5	26	19	7	4	16	1	6	1	102	30	132
1889	25	...	20	4	18	10	8	5	15	3	3	1	89	23	112
1890	19	1	16	2	16	12	14	5	25	2	4	2	94	24	118
1891	36	1	14	2	16	10	3	2	29	4	2	...	100	19	119
1892	37	...	17	1	20	11	8	4	20	1	6	2	108	19	127
1893	42	...	18	2	28	8	22	8	15	6	3	1	128	25	153
1894	29	2	15	3	22	14	23	16	17	5	5	...	111	40	151
1895	37	1	24	2	25	10	24	9	18	4	7	2	135	28	163
1896	39	1	18	2	26	10	39	11	26	3	7	...	155	27	182
Total	315	6	174	24	214	115	162	71	207	33	47	10	1,119	259	1,378

Suicide by hanging formerly claimed the largest number of male victims; but for the ten years ended 1896 there were 315 suicides of males by shooting, as against 207 by hanging. Death by poisoning was most favoured by women, there having been 115 cases during the decade, while 71 females put an end to themselves by drowning.

The following table shows the number of suicides, and the proportion to total deaths, for the last ten years:—

Year.	Suicides by males.		Suicides by females.		Total Suicides.	
	No.	Per thousand of total deaths of males.	No.	Per thousand of total deaths of females.	No.	Per thousand deaths.
1887	97	12·47	24	4·23	121	9·00
1888	102	12·07	30	5·04	132	9·16
1889	89	10·24	23	3·74	112	7·55
1890	94	11·35	24	4·04	118	8·30
1891	100	10·46	19	2·82	119	7·31
1892	108	12·64	19	3·24	127	8·81
1893	128	13·78	25	3·71	153	9·55
1894	111	12·74	40	6·20	151	9·95
1895	135	15·48	28	4·49	163	10·93
1896	155	16·75	27	4·10	182	11·49

The following table shows the average annual proportion of suicides, at different age-groups of males and females, per million of population, for the twenty-six years 1871–96 :—

Age Groups.	Average of 10 years, 1871-80.		Average of 10 years, 1881-90.		Average of 6 years, 1891-96.		Average of 26 years, 1871-96.	
	M.	F.	M.	F.	M.	F.	M.	F.
10 years and under 15 ...	3	...	4	2	7	2	5	2
15 ,, ,, 20 ...	14	14	28	44	31	74	25	46
20 ,, ,, 25 ...	42	45	99	44	140	69	98	53
25 ,, ,, 30 ...	92	35	191	54	160	65	156	54
30 ,, ,, 35 ...	184	62	231	71	250	75	226	70
35 ,, ,, 40 ...	269	65	242	61	360	95	286	73
40 ,, ,, 45 ...	230	109	294	102	382	48	302	87
45 ,, ,, 50 ...	396	88	343	86	420	90	381	88
50 ,, ,, 55 ..	388	91	500	138	540	62	482	100
55 ,, ,, 60 ...	374	82	489	99	525	86	472	90
60 ,, ,, 65 ...	572	192	456	90	591	217	530	157
65 ,, ,, 70 ...	674	89	615	100	778	62	681	85
70 ,, and upwards ...	406	39	504	118	960	204	628	132
All ages	176	47	205	56	251	66	212	57

These figures show that suicide is steadily increasing both amongst males and females, and that the disposition to self-destruction increases with each year of life. The rate for females is only one-fourth of that for males, and this average has been maintained in a singular manner throughout the whole period over which observation extends. At no period of life, except during the five years 15 to 19, are females more prone to suicide than males, nor does age develop the tendency amongst them to the same extent.

Experience shows that conduct is largely influenced by the seasons. As regards suicides, this is most plainly seen amongst males, who are more prone to attempt self-destruction in the first and last quarters of the year than in the intervening period. January, February, and December, the three hottest months of the year, have the largest record of suicides. For the decade ended 1896 the proportion of male suicides during the four quarters of the year was as follows :—

First quarter	25·47 per cent.
Second quarter	21·36 ,,
Third quarter	23·32 ,,
Fourth quarter	29·85 ,,

Female suicides classified by quarters for the same period show the highest proportion during the fourth quarter, as do the males ; but, contrary to expectation, the proportion of the first quarter is the lowest of the year, the figures being as follow :—

First quarter	20·08 per cent.
Second quarter	22·78 ,,
Third quarter	27·03 ,,
Fourth quarter	30·11 ,,

The mean rate of the whole of Australasia for the ten years ended 1896 was 11·5, which is slightly lower than in New South Wales. In respect to suicide, however, all the colonies, Tasmania alone excepted, compare somewhat unfavourably with Great Britain, deaths by suicide averaging 8·4 per 100,000 of population in England and Wales, and 5·6 in Scotland. The following figures show the rate of deaths from suicide in the Australasian colonies :—

Colony.	Per 100,000 of mean population.
Tasmania	7·8
South Australia	8·8
New Zealand	9·5
Victoria	11·5
New South Wales	11·9
Queensland	16·4
Western Australia	18·4

INDEX OF MORTALITY.

It is well-known that the ages of the population considerably affect the death-rate of a country; and in order to have a comparison of the mortality of the principal countries of the world on a uniform age basis, the International Statistical Institute, in its 1895 session, held at Berne, decided to recommend the adoption of the population of Sweden, in five age-groups, as ascertained at the census of 1890, as the standard population by which the index of mortality should be calculated. Applying the coefficient of mortality in each age-group in New South Wales to the age-constitution of the standard population, the index of mortality for the colony during the last ten years is found to be as follows :—

Year.	Index of Mortality.	Death-rate.
	per thousand.	per thousand.
1887	16·65	13·38
1888	17·26	13·91
1889	17·22	13·87
1890	16·51	12·90
1891	18·68	14·24
1892	15·65	12·20
1893	16·71	13·24
1894	16·32	12·26
1895	15·69	11·79
1896	16·45	12·30

For purposes of comparison, the index of mortality has been calculated for each of the seven colonies of Australasia during the six years ended 1895, and the figures are set down below. How greatly the age-constitution of the population determines the annual mortality of a country may be seen from the table, which shows that in 1895 the index of mortality in Australasia ranged from 18·86 per thousand in Western Australia to 13·40 per thousand in Tasmania, while for the same year the death-rate ranged from 17·50 in Western Australia to 9·91 per thousand of population in New Zealand.

It is necessary to point out, in connection with the calculations of the indices of mortality, that the age-constitution of the population of each of the colonies during each of the six years taken has been assumed to be that which existed at the census in 1891. It is apparent that the composition of the populations of some of the colonies has changed since that date; but no data are available upon which a reliable estimate of the conditions at the present time can be based.

Colony.	1890.	1891.	1892.	1893.	1894.	1895.
New South Wales	16·51	18·68	15·65	16·71	16·32	15·69
Victoria	18·71	19·48	16·24	16·73	15·96	16·39
Queensland	17·29	15·52	15·82	16·66	16·29	15·21
South Australia	15·33	16·75	14·07	16·10	14·61	14·36
Western Australia	15·11	21·54	18·94	18·08	16·65	18·86
Tasmania	17·25	18·01	15·64	15·43	14·74	13·40
New Zealand	12·87	13·95	13·59	13·56	14·44	13·98
Australasia	16·68	17·83	15·47	16·16	15·68	15·49

BURIALS.

Cemeteries in New South Wales are in some cases church property; in other cases they belong to municipal corporations; and in other cases again they are Government property administered by trustees, partly appointed and partly elected. A few cemeteries in outlying parts of the colony are in the hands of private owners. In the metropolitan area the first three kinds of ownership are all represented. The necropolis at Rookwood and the cemetery at Sutherland are Government property managed by trustees; while amongst a number of others, the Waverley and Long Bay cemeteries belong to the Waverley and Randwick municipalities respectively; and the St. Thomas's, North Sydney; Watson's Bay, St. Peters, Petersham, and Randwick cemeteries are church property. Burial fees at Rookwood range from 12s. 6d. to £1 10s., and at Waverley from £1 17s. 6d. to £2 7s. 6d., for the great majority of funerals; in exceptional cases, however, they may, according to situation and area required, amount to £10 10s. or more. The average price of funerals in the metropolitan area may be stated to be as follows:—For coffin and hearse, first class, £10; second class, £7; third class, £4; and for coaches, from £1 5s. to £1 10s. each, according to distance to be travelled; total cost—first class, £15; second class, £10 10s.; third class, £7 10s. It is impossible to establish any average for country funerals; for while in some of the larger country towns undertakers are to be found, in the majority of country places actual funeral expenses need hardly be incurred except in the shape of burial fees.

SICKNESS AND INFIRMITY.

Closely allied to the consideration of the rate of mortality is that of the rate of sickness; but it must be borne in mind that the latter is by no means directly proportioned to the former. At different periods of life mankind is exposed to different classes of disease, some virulent and of brief duration, others protracted in duration yet less fatal in their effects. Within a few months after their entrance into the world the majority of the infants prematurely born or of weak or imperfect organisation are removed by death, and others succumb to such causes as "overlaying," improper feeding — commonly termed "want of breast milk"—and "infanticide." During the next few years of life children are especially subject to such diseases as convulsions (symptomatic of undeveloped causes of sickness), measles, whooping-cough, scarlet fever, and diphtheria, from which the survivors generally enjoy an immunity during the remainder of their life. Later on in the progress of years, during a period ranging from puberty to the change of life, many become victims to consumption, often after a wearisome and lingering resistance; while after entering into active life they are exposed to the risk of accidents, more or less imminent according to the occupation adopted, and resulting it may be in immediate death or in a more or less permanent sickness or disablement; and during this period the females, if not, as a rule, so exposed to external dangers, suffer frequent loss from the risks of childbirth. During the later portion of this period and the years succeeding it, many are removed by diseases from some of which they may have been secretly or unwittingly suffering for years; and the deaths from heart disease, liver diseases, and cancer are very numerous, the last-named becoming more widespread in New South Wales and more prevalent among men than among women. And last of all comes that oft-time protracted "chronic illness" generally termed "old age," when people are for the most part unable to work for the means of subsistence, and are therefore dependent on the provision they have made in the past or on the good will of others. Although in a medical sense sickness may only be used to denote that state of the body which requires the administration of medicine or the attendance and services of a medical practitioner, yet in the ordinary acceptation of the term it is employed to denote inability to follow one's usual occupation in life from whatever cause it may arise. Thus a sore thumb might be "sickness" in the case of a compositor or a bricklayer, but not in the case of his foreman or employer.

In accordance with the decision of the Conference of Statisticians, an inquiry was inserted in the Census schedule with the intention of eliciting information as to the number of persons suffering from sickness or infirmity. It was not expected that the inquiry would be on all points successful; indeed, it was recognised that the term sickness is itself vague; but it is probable that the inquiry was understood to refer to inability to follow ordinary occupations, or, where there was no occupation, then bed-fast sickness was understood. Judging from the information gathered from other sources, it is believed that the particulars obtained were substantially accurate, except perhaps in regard to epilepsy and idiocy. In the case of persons suffering from the neuroses last mentioned, it is quite possible that there was some reluctance on the part of those filling up the schedule, especially where the persons concerned were their offspring, to record either infirmity except when its presence was too plain to be overlooked.

Assuming the results of the census of 1891 to be indicative of the general condition of the population of the colony, and excluding the aborigines, it would appear that something like 2 per cent. of the people constantly suffer from some form of infirmity arising either from disease or from disablement of a more or less permanent character. The following table shows the number and the proportion per 1,000 suffering from each cause:—

Sickness or Infirmity.	Total number.			Per thousand.		
	Males.	Females.	Total.	Males.	Females.	Persons.
al cases of Infirmity	13,926	8,325	22,251	23·11	16·14	19·88
ness—						
'aralysis	530	321	851	0·89	0·62	0·77
pilepsy	209	130	339	0·35	0·25	0·31
eprosy	15	......	15	0·01	......	0·00
hers and undefined	5,732	4,385	10,117	9·55	8·51	9·06
'otal Sickness	6,486	4,836	11,322	10·80	9·38	10·14
Infirmities—						
ident	1,248	211	1,459	2·09	0·41	1·31
f and Dumb	210	173	383	0·35	0·34	0·34
ıb only	3	6	9	0·01	0·01	0·01
only	780	568	1,348	1·30	1·10	1·21
l..	416	325	741	0·69	0·63	0·66
ıe	1,926	1,203	3,129	3·12	2·33	2·75
c	164	122	286	0·27	0·24	0·25
led	1,182	593	1,775	1·97	1·15	1·59
Limb	566	69	635	0·94	0·13	0·57
ight of an Eye......	945	219	1,164	1·57	0·42	1·05

A separate classification of the Chinese was made, but no special features were disclosed except that 9 out of the 15 lepers were of this nationality. There was also one Javanese leper. The number of Chinese insane was 73—a much larger figure than their proportion of the community warranted; but in this the Chinese were not singular, as several other nationalities had a like undue proportion.

By virtue of the Leprosy Act of 1890, the Board of Health is empowered to detain and isolate persons suffering from leprosy. In 1891 there were lepers in all the colonies of Australasia except Tasmania, and in all the cases then known to the health authorities the afflicted were of the male sex. The number of lepers in each colony at that time, and the nationalities to which they belonged, were as set out in the appended table:—

Colony.	Nationality.							
	Europeans.	Australian Aboriginals.	Maoris.	South Sea Islanders.	Chinese.	Javanese.	Cingalese.	Total.
New South Wales.	5	...	...	...	9	1	...	15
Victoria	1	...	...	...	2	...	...	3
Queensland	2	1	...	3	3	...	1	10
South Australia...	...	...	...	...	3	...	...	3
Western Australia	...	...	...	...	1	...	...	1
New Zealand	...	...	4	...	...	...	...	4
Total.........	8	1	4	3	18	1	1	36

On January 1st, 1897, there were 16 persons—13 males and 3 females—in the leper lazaret at Little Bay, New South Wales. This number was considerably less than that at the beginning of the year 1896, nineteen Chinese lepers having been returned to their native country in the course of the year. The present inmates belong to the following nationalities:—New South Wales, 7; England, 2; Germany, 1; India, 1; China, 2, ; Java, 1 ; South Sea Islands, 2.

During the Census year there were 943 deaths due to accidents, 780 being of males and 163 of females. On the day of enumeration, 1,248 males and 211 females were recorded as suffering from accidents of such a nature as to require special attention.

The blind numbered 416 males and 325 females, of whom 657 were adults and 84 under 21 years of age. Of these, 32 adults were employed or connected with the Industrial Blind Institution at Sydney, and 20 children were in other public institutions.

By crippled were understood such persons as through illness and accident had lost the complete or partial use of one or more than one limb without being entirely deprived of the member itself. The term is none too happy, seeing that a majority of the persons afflicted were not disabled from following gainful occupations.

The deaf and dumb comprised 162 adults, and 221 children and others under 21 years; of these, 57 were inmates of the Deaf and Dumb Institution at Sydney. There were 780 males and 568 females returned as being deaf but not dumb. Deafness, as defined in the Census schedule, was intended to mean total infirmity; the inquiry, however, was possibly misunderstood by some, and cases of infirmity of hearing short of total deafness recorded, but the figures viewed in ages give no clue to what was really understood. There were 127 persons under 21 years returned as deaf, and 1,221 above that age. The persons returned as dumb but not deaf were only 9 in number, 3 of whom were males, and 6 females.

The epileptics whose infirmity was noted on the schedule were 209 males and 130 females. They probably comprised only those who were actually suffering on the day of the Census—the persons with an epileptic taint were doubtless much more numerous.

As already pointed out, there is reason to believe that the number of persons returned as idiotic understates the truth, seeing that only 118 under 21 and 168 over that age were so returned. Perhaps only the aggressively idiotic were recorded on the Census papers, for truly between the drivelling idiot and the confessedly sane there are many grades of idiocy not likely to be acknowledged as such.

Duration of Sickness.

No doubt accurate returns could be obtained from public institutions as to the duration after admission and the result of all cases which have undergone treatment in them, but they would not be correct enough for general use. Many of the cases of sickness might have existed for some time before the patient applied for relief, and, what is of still greater importance, as a rule only those whose condition is deemed critical are conveyed to a hospital, whilst what is required to make the statistics of any public utility is that we should obtain the average duration of "sickness," that is, of inability to work at the usual trade or business at each period of life.

Up to the present time no statistics relating to the average duration of fatal sickness have been compiled, although in most cases valuable information might be obtained from the registration of deaths. So far, however, as relates to the duration of general sickness, some important material was compiled by the late Secretary to the Manchester Unity of the Independent Order of Oddfellows in New South Wales concerning the mortality and sickness among its members. From this information has been prepared the following table, in which a comparison is made between the experience of that extensive Order in England and in New South Wales with regard to the average sickness per annum to each person, the annual mortality per cent., and the number of days' sickness to each death, at various age groups :—

Age.	England.			New South Wales.		
	Weeks of Sickness per Member per annum.	Mortality per cent. per annum.	Days of Sickness to 1 Death.	Weeks of Sickness per Member per annum.	Mortality per cent. per annum.	Days of Sickness to 1 Death.
21–25	0·754	0·667	791	0·401	0·293	958
26–30	0·827	0·764	758	0·512	0·455	788
31–35	0·954	0·864	773	0·629	0·575	765
36–40	1·100	1·046	736	0·828	0·667	316
41–45	1·348	1·257	751	1·181	0·988	837
46–50	1·776	1·545	805	1·583	1·087	1,020
51–55	2·406	2·035	828	1·949	1·638	833
56–60	3·441	2·769	867	3·299	2·278	1,014
61–65	5·306	3·989	931	6·616	3·605	2,241
66–70	8·399	5·638	1,043	6·949	6·019	808
71–75	13·092	8·560	1,071	15·164	8·850	1,200
76–80	18·307	12·204	1,050	14·860	20·000	520

From the above it will be seen that both the mortality experience of the colony, and the sickness, appear to be lower than in England; but the data for New South Wales in regard to sickness are not yet sufficient to enable any confident deduction to be drawn from the tabulated results.

Expectation of Life.

It is a matter of very common remark that nothing is more uncertain than the length of life which an individual may enjoy, and nothing more certain than the duration of lives taken in the aggregate. A life-table professes to give the number of persons out of a given number—usually 100,000—who may be expected to survive at the end of each year, commencing with birth or year 0, until the last has been counted out. As a complement to this, it shows the number who may be expected to die in the course of a year, and the mean after-life-time of persons at each completed year of life. This last is what is usually called the expectation of life, and is so called in the life-tables which will be found annexed.

The data required for a life-table are the number of persons living, as ascertained by an exact enumeration of the people, and the number of deaths recorded at each year of age. Experience, however, shows that neither in the case of one set of facts nor in the other is absolute exactitude attainable; for, without regarding those who deliberately misstate their age at the time of the Census, there are always some, and by no means a few, who either do not know the year of their birth, or in the Census paper return themselves as at the nearest decennial age. Thus it is the universal experience of those who have compiled a population census to find that the number of persons at age 40, for example, largely exceeds that at 38, 39, 41, or 42, and similarly with 50 and other decennial ages. There is also a tendency, although not to such a marked extent, for persons near the quinquennial ages, if they may so be termed, viz., 35, 45, 55, etc., to return themselves as at these ages and not at their true age. The ages of persons dying are stated with more exactitude, although there is a tendency for the ages to group themselves round the decennial figures. It is necessary in a life-table to make allowance for the bias or personal equation which the statements of ages exhibit, otherwise the expectation of life when plotted to a scale would exhibit a series of angular points, instead of the rather graceful curves which the diagram should show. Dr. Farr, to whose labours the world owes the first English life-table, adopted a system of adjustment which effectually smoothed off the angular points to which allusion has been made; but it is now recognised that this smoothing process was too effectual, and the variations from uniformity at certain ages, arising from change of life, from the effects of climate and environment, or from emigration, are altogether lost. Since the compilation of the fourth or last English life-table by Dr. Ogle, the question of adjustment has been very fully discussed, and the method used by Mr. W. S. B. Woolhouse, in adjusting the graduation of the tables of mortality adopted by the Institute of Actuaries, has met with general approval; and it is the system of Woolhouse that has been used in calculating the mortality on which the following tables are based.

The ages assumed were those ascertained at the Census taken on the 5th April, 1891, and the deaths those registered as occurring during the twelve months preceding and the twelve months following the day of the Census. The number of persons dealt with was 1,123,954, being the population of the colony, less the aborigines; and the number of deaths in the two years, 30,504. It may be well to note at this stage that the death-rate of 1891 was very considerably augmented by the influenza epidemic, an abnormal proportion of deaths occurring amongst aged persons, especially females. This is a circumstance which should be taken into account in comparing life-tables hereafter compiled with the one now presented.

The necessity for exact data in calculating life contingencies brought into existence the first life-table; but there are uses to which it may be put that are entirely apart from the requirements of the actuary. If the progress of medicine, viewed as the art of prolonging life, is to be measured, the only gauge which can be applied is the life-table; and it is held to be very positive evidence of the improved condition of the people that in the forty years that elapsed between the compilation of Dr. Farr's first table of the expectation of life and of that by Dr. Ogle, there was an improvement of 1½ years in the expectation at birth.

It is impossible to compare the expectation of life now ascertained for New South Wales with that of past years, as this is the first time that the expectation has been ascertained; but a few comparisons with Dr. Ogle's table for England may not be without interest. First, however, it may be well to allude to several material points which should be kept in view in dealing with the New South Wales table.

The population of the colony is composed of two-thirds of native born and one-third of British or foreign parentage; and of the persons over 16 years of age, about one half belong to the latter category. The average length of time which the non-Australian-born have spent in the colony cannot, of course, be determined; but it must be abundantly plain that there is a very large number of persons in New South Wales whose past life has been very little influenced by Australian conditions. Thus the mortality experience which the tables show is in reality of two kinds. The earlier ages are practically purely Australian, whilst the later ages are partly Australian and partly British and foreign, the latter element getting stronger as the ages advance. Therefore, though the expectation here given is correct as regards the population as at present constituted, it might not be so if the Australian-born element predominated so largely at every age as it does at the earlier periods. No attempt is made to differentiate the two elements of population, with the view of discovering whether it is true, as is sometimes assumed, that the conditions in Australia are favourable for early and middle life, but not for old age, or whether the very marked superiority of the Australian over the European death-rate for early ages is maintained throughout all the ages. The data by means of which such could be done are lacking. It may here be sufficient to say that there is evidence to show that the admixture of non-Australian-born has not improved the expectation of life at the ages where their presence is of importance.

An inspection of the following tables will show that the expectation of life, according to the New South Wales life-table, is greater for males for every year up to 84 than under the English life-table of Dr. Ogle. At birth (age 0 of the table), the difference in the expectation is 8¼ years, at 5 years of age, 4·03; at 10 years, 3·29 years; at 30, 2·2 years; and at 60 years, 0·46. For females up to 64 years much the same results are shown. Thus, at age 0 the New South Wales expectation exceeds the English by 8·28 years; at 5 years, by 4·34; at 10 years, by 3·63; at 30 years, by 2 years; and at 60, by 0·27 years. At the ages above 64 the expectation for females is higher in the English table than in that of New South Wales. It must not be supposed, however, that this means that the superiority of the ages below 84 for males and 64 for females is lost after those years are attained. Such is not the case. It is true that, compared with the population, there are more deaths in New South Wales at the ages above those quoted than there are in England, but it is also true that a larger proportion is then surviving in New South Wales than in England. Thus out of 100,000 males born in New South Wales, 5,920 will survive until 84, whereas in England the number is only 3,813. Similarly, at age 90 the survivors in New South Wales would be 1,156, whereas in England they would number 802 only, The figures in regard to females show much the same proportions. Out of 100,000 females born in New South Wales, 48,725 would survive till 64, against 37,049 in England; 37,570 would live till 70 years of age, against 27,723 in England; at age 80 the numbers would be 13,657 and 10,894; and at age 90, 1,630 and 1,423 respectively.

If a comparison be made with the English life table of Dr. Farr, it will be found that in each instance the expectation for females exceeds that for males, varying in the case of New South Wales from 3·3 at age 0 to 2·5 years at 10 years, the difference gradually becoming less and less as the ages increase, until the expectation becomes almost the same for each sex. Neither of the English life tables, as computed by Dr. Farr and Dr. Ogle, nor that computed by the author for New South Wales, shows that the expectation of life of women of the reproductive age, say 15 to 45 years, falls nearer to that of males than at other ages. Whatever may be the risks attendant on child-bearing, it seems they do not affect the death-rate of females more largely than accidents or other risks to which males are liable at the same ages affect that of males The following are the tables of the expectation of life for New South Wales:—

Expectation of Life—Males.

Age.	Expectation of living a year.	Expectation of dying in a year.	Average duration of life.	Age.	Expectation of living a year.	Expectation of dying in a year.	Average duration of life.	Age.	Expectation of living a year.	Expectation of dying in a year.	Average duration of life.
0	·8722600	·1277400	49·60	31	·9928036	·0071964	33·54	61	·9650778	·0349222	13·02
1	·9719879	·0280121	55·78	32	·9926016	·0073984	32·77	62	·9617963	·0382037	12·47
2	·9873909	·0126091	56·37	33	·9922719	·0077281	32·02	63	·9581808	·0418192	11·95
3	·9920202	·0079798	56·09	34	·9919489	·0080511	31·26	64	·9544581	·0455419	11·45
4	·9935094	·0064906	55·54	35	·9915767	·0084233	30·51	65	·9511891	·0488109	10·97
5	·9940609	·0059391	54·90	36	·9910973	·0089027	29·76	66	·9491130	·0508870	10·51
6	·9954520	·0045480	54·22	37	·9906768	·0093232	29·03	67	·9469494	·0530506	10·04
7	·9965826	·0034174	53·41	38	·9903885	·0096115	28·30	68	·9446631	·0553369	9·58
8	·9974189	·0025811	52·65	39	·9900638	·0099362	27·57	69	·9419265	·0580735	9·11
9	·9979421	·0020579	51·78	40	·9896719	·0103281	26·84	70	·9377764	·0622236	8·64
10	·9981725	0018275	50·89	41	·9892689	·0107311	26·11	71	·9317183	·0682817	8·22
11	·9980949	·0019051	49·98	42	·9887049	·0112951	25·39	72	·9244133	·0755867	7·75
12	·9979674	·0020326	49·08	43	·9879420	·0120580	24·68	73	·9169053	·0830947	7·34
13	·9977893	·0022107	48·18	44	·9872296	·0127704	23·97	74	·9089223	·0910777	6·96
14	·9975604	·0024396	47·28	45	·9866157	·0133843	23·27	75	·9014884	·0985116	6·51
15	·9972301	·0027699	46·40	46	·9861989	·0138011	22·58	76	·8948647	·1051353	6·27
16	·9970221	·0029779	45·52	47	·9858149	·0141851	21·89	77	·8889300	·1110700	5·95
17	·9965866	·0034134	44·66	48	·9853850	·0146150	21·20	78	·8824101	·1175899	5·63
18	·9961593	·0038407	43·81	49	·9848244	·0151756	20·51	79	·8757080	·1242920	5·32
19	·9957653	·0042347	42·98	50	·9838093	·0161907	19·82	80	·8690262	·1309738	5·00
20	·9954553	·0045447	42·16	51	·9821404	·0178596	19·13	81	·8607608	·1392392	4·68
21	·9951667	·0048333	41·35	52	·9804566	·0195434	18·47	82	·8501261	·1498739	4·36
22	·9949639	·0050361	40·54	53	·9789641	·0210359	17·83	83	·8362763	·1637237	4·04
23	·9947709	·0052291	39·75	54	·9771110	·0228890	17·20	84	·8197635	·1802365	3·73
24	·9945492	·0054508	38·95	55	·9758044	·0241956	16·58	85	·7995055	·2004945	3·44
25	·9942850	·0057150	38·16	56	·9752044	·0247956	15·99	86	·7750000	·2250000	3·18
26	·9940897	·0059103	37·38	57	·9740342	·0259658	15·39	87	·7485866	·2514134	2·96
27	·9937435	·0062565	36·60	58	·9724615	·0275385	14·79	88	·7281208	·2718792	2·79
28	·9934788	·0065212	35·83	59	·9709995	·0290005	14·19	89	·7053081	·2946919	2·64
29	·9932225	·0067775	35·06	60	·9686662	·0313338	13·60	90	·6842561	·3157439	2·54
30	·9930151	·0069849	34·30								

Expectation of Life—Females.

Age.	Expectation of living a year.	Expectation of dying in a year.	Average duration of life.	Age.	Expectation of living a year.	Expectation of dying in a year.	Average duration of life.	Age.	Expectation of living a year.	Expectation of dying in a year.	Average duration of life.
0	·8888400	·1111600	52·90	31	·9934405	·0065595	35·65	61	·9736931	·0263069	13·86
1	·9721210	·0278790	58·45	32	·9930435	·0069565	34·88	62	·9713613	·0286387	13·23
2	·9894336	·0105664	59·11	33	·9925462	·0074538	34·12	63	·9680335	·0319665	12·60
3	·9927596	·0072404	58·74	34	·9921147	·0078853	33·38	64	·9656029	·0343971	12·00
4	·9954631	·0045369	58·16	35	·9917070	·0082930	32·64	65	·9625497	·0374503	11·41
5	·9948987	·0051013	57·42	36	·9913404	·0086596	31·91	66	·9594806	·0405194	10·83
6	·9950748	·0049252	56·71	37	·9911013	·0088987	31·18	67	·9564807	·0435193	10·27
7	·9965210	·0034790	55·99	38	·9910626	·0089374	30·46	68	·9532494	·0467506	9·72
8	·9976725	·0023275	55·19	39	·9908016	·0091984	29·73	69	·9483063	·0516937	9·17
9	·9985209	·0014791	54·11	40	·9905482	·0094518	29·00	70	·9427203	·0572797	8·64
10	·9989402	·0010598	53·39	41	·9903673	·0096327	28·27	71	·9355413	·0644587	8·13
11	·9987100	·0012900	52·45	42	·9901798	·0098202	27·54	72	·9275389	·0724611	7·66
12	·9984790	·0015210	51·52	43	·9897077	·0102923	26·81	73	·9171927	·0828073	7·24
13	·9982349	·0017651	50·60	44	·9897463	·0102537	26·08	74	·9076235	·0923765	6·83
14	·9979653	·0020347	49·68	45	·9896694	·0103306	25·34	75	·8984561	·1015439	6·47
15	·9976942	·0023058	48·78	46	·9895765	·0104235	24·60	76	·8893288	·1106712	6·15
16	·9973969	·0026031	47·90	47	·9892714	·0107286	23·86	77	·8803992	·1196008	5·85
17	·9970853	·0029147	47·02	48	·9892917	·0107083	23·11	78	·8748750	·1251250	5·57
18	·9967587	·0032413	46·16	49	·9887459	·0112541	22·36	79	·8673315	·1326685	5·30
19	·9965028	·0034972	45·30	50	·9882762	·0117238	21·61	80	·8600718	·1399282	5·04
20	·9963181	·0036819	44·46	51	·9875086	·0124914	20·86	81	·8536523	·1463477	4·78
21	·9961315	·0038685	43·62	52	·9870483	·0129517	20·11	82	·8446195	·1553805	4·51
22	·9958683	·0041317	42·79	53	·9859112	·0140888	19·37	83	·8343370	·1656630	4·24
23	·9956269	·0043731	41·97	54	·9847452	·0152548	18·64	84	·8262100	·1737900	3·99
24	·9952823	·0047177	41·15	55	·9834462	·0165538	17·92	85	·8117506	·1882494	3·72
25	·9949456	·0050544	40·34	56	·9820026	·0179974	17·21	86	·7953155	·2046845	3·47
26	·9945535	·0054465	39·54	57	·9801426	·0198574	16 52	87	·7795171	·2204829	3·24
27	·9943458	·0056542	38·76	58	·9790564	·0209436	15·85	88	·7590197	·2409803	3·00
28	·9941092	·0058908	37·98	59	·9773721	·0226279	15·17	89	·7309417	·2690583	2·80
29	·9939071	·0060929	37·20	60	·9755284	·0244716	14·51	90	·6650307	·3349693	2·64
30	·9937017	·0062983	36·42								

The calculation was extended to 100 years, but it was deemed advisable to cut the table short at 90 years, as the number of persons over that age was altogether too small to afford sufficient experience on which to found a Life Table. As a matter of curiosity, it may be mentioned that the expectation of life at ages over 90 was as follows :—

Age.	Living out of 100,000 born.		Expectation of life in years.	
	Males.	Females.	Males.	Females.
91 ...	761	1,084	2·48	2·72
92 ...	529	767	2·41	2·64
93 ...	361	531	2·36	2·59
94 ...	242	367	2·27	2·52
95 ...	163	250	2·16	2·47
96 ...	106	169	1·96	2·42
97 ...	67	113	1·68	2·37
98 ...	42	75	1·37	2·31
99 ...	26	49	0·80	2·28
100 ...	13	31	0·16	2·31

In addition to the expectation of life in New South Wales, in the following table will be found a column showing the H.M. (healthy male) table of the Australian Mutual Provident Society. The corresponding figures of Dr. Ogle's English Life Table are also given, by way of comparison. And while the after-lifetime at each age in the H.M. table of the A.M.P. Society is higher than that for the colony, the gradation is much the same in each calculation. That one should give an estimate of greater longevity at the different ages than the other is but natural; for in computing the table for the whole colony, the total numbers of persons living and dying at each period of life are taken into consideration, whereas in the case of the A.M.P. table, only selected lives, or such as would be accepted by an insurance society, form the basis of computation. Looking at the two tables, therefore, in their true light, the one is, as it stands, more an index of the correctness of the other than it would be if the figures in both were identical. Dr. Farr calls the Life Table a *biometer*, and speaks of it as of equal importance, in all inquiries connected with human life or sanitary improvements, with the barometer or thermometer and similar instruments employed in physical research, and as being also the keystone or pivot on which the whole science of life assurance hinges. For even supposing that an insurance society had empirically arrived at an equitable ate of premium for assuring lives, the Mortality or Life Table is still equired in order to ascertain the value of such premiums for a prosective term of years, as against the value of the sums assured thereby, that a statement of assets and liabilities may be periodically preared. Without such knowledge a division of "profits" would be npossible. In fact, the Life Table is absolutely essential for the solution of all questions depending on the duration of human life":—

Age.	New South Wales.		H.M. A.M.P. Soc.	England. (Dr. Ogle.)	
	Males.	Females.		Males.	Females.
Birth	49·6	52·9	....	41·4	44·6
5 years	54·9	57·4	....	50·9	53·1
10 ,, ...	50·9	53·4	....	47·6	49·8
15 ,, ...	46·4	48·8	....	43·4	45·6
20 ,, ...	42·2	44·5	46·0	39·4	41·7
25 ,, ...	38·2	40·3	41·8	35·7	38·0
30 ,, ...	34·3	36·4	37·5	32·1	34·4
35 ,, ...	30·5	32·6	33·4	28·6	30·9
40 ,, ...	26·8	29·0	29·3	25·3	27·5
45 ,, ...	23·3	25·3	26·4	22·1	24·1
50 ,, ...	19·8	21·6	22·6	18·9	20·7
55 ,, ...	16·6	17·9	18·9	16·0	17·3
60 ,, ...	13·6	14·5	15·2	13·1	14·2
65 ,, ...	11·0	11·4	12·0	10·6	11·4
70 ,, ...	8·6	8·6	9·6	8·3	9·0
75 ,, ...	6·5	6·5	7·1	6·3	6·9
80 ,, ...	5·0	5·0	4·8	4·8	5·2
85 ,, ...	3·4	3·7	3·4	3·6	3·9
90 ,, ...	2·5	2·6	2·4	2·7	2·9

VACCINATION.

Vaccination is not compulsory in New South Wales, and is resorted chiefly in times of scare, when an epidemic of small-pox is thought be imminent. It is easy to discover from the returns of the Governent vaccinators the years when the community was threatened by the isease, as at such times the number of persons submitting themselves to accination largely increased. The number returned does not include ose treated by private medical officers, by whom a large number of persons are vaccinated. The following figures show the number of persons vaccinated by Government Medical Officers since the year 1877 :—

Year.	Sydney and Suburbs.	Country.	Total.	Year.	Sydney and Suburbs.	Country.	Total.
1877	5,308	11,943	17,251	1887	1,031	2,199	3,230
1878	532	3,038	3,570	1888	1,091	1,095	2,186
1879	657	4,981	5,638	1889	728	1,676	2,404
1880	460	4,699	5,159	1890	958	1,239	2,197
1881	8,738	52,501	61,239	1891	531	1,036	1,567
1882	380	1,869	2,249	1892	1,326	2,688	4,014
1883	296	600	896	1893	838	1,709	2,547
1884	630	6,569	7,199	1894	15	1,942	1,957
1885	346	1,884	2,230	1895	72	2,360	2,432
1886	452	1,311	1,763	1896	78	867	945

The number and ages of persons vaccinated by the Government Medical Officers during 1896 will be found below :—

District.	Under 1 year.	From 1 to 5 years.	From 5 to 10 years.	10 years and upwards.	Total.
Sydney and suburbs	5	18	34	21	78
Country districts	55	148	402	262	867
Total	60	166	436	283	945

INSANITY.

The number of insane persons under treatment in hospitals is almost a fixed proportion of the total population, viz., 2·84 per thousand. Since 1877 the proportion has varied only from 0·10 above and 0·12 per thousand below the average stated. The hospitals for insane, under the immediate control of the Government, are seven in number—six for ordinary insane, and one, at Parramatta, for criminals. Besides these there are two licensed houses, each for a single patient, at Picton; one at Ryde for five patients; and another at Cook's River, near Sydney, containing 34 inmates.

The number of insane persons under treatment on the 31st December, 1896, under official cognisance, was 3,841. These figures are 125 in excess of the number on the register at the end of 1895, and 254 higher than at the end of 1894. From the table given below, showing the distribution of the patients, it will be seen that, in addition to the 3,841 inmates of the New South Wales asylums, four were located in hospitals in South Australia. This was in terms of an arrangement which has been made with the Government of that colony, whereby patients from the Broken Hill district are sent to South Australia :—

Name of Hospital.	Number on Register.		
	Males.	Females.	Total.
Government Hospitals—			
Callan Park	469	411	880
Gladesville	522	346	868
Parramatta, free	685	383	1,068
Do criminal	44	14	58
Newcastle	153	153	306
Rydalmere	315	151	466
Kenmore	154	......	154
Licensed Houses—			
Cook's River	11	23	34
Picton (two)	......	2	2
Ryde	......	5	5
South Australian Hospitals	3	1	4
Totals	2,356	1,489	3,845

The proportion of insane to the whole population, as already pointed out, has been almost a constant quantity. This will be seen from the accompanying table giving the number of persons in hospitals for insane at the close of each year from 1877 to 1896 inclusive. It is noteworthy, however, that in 1896 the proportion was the highest during the last twenty years, and this, too, in face of the stoppage of the influx of insane patients into the colony from other places :—

On 31 December.	No. of Insane.	Proportion of Insane per 1,000 of population.	On 31 December.	No. of Insane.	Proportion of Insane per 1,000 of population.
1877	1,829	2·84	1888	2,898	2·80
1878	1,916	2·85	1889	2,974	2·79
1879	2,011	2·83	1890	3,102	2·82
1880	2,099	2·83	1891	3,134	2·74
1881	2,218	2·90	1892	3,312	2·77
1882	2,307	2·89	1893	3,425	2·80
1883	2,403	2·87	1894	3,587	2·87
1884	2,524	2·86	1895	3,716	2·91
1885	2,643	2·85	1896	3,841	2·96
1886	2,717	2·80			
1887	2,821	2·81		Mean	2·84

The amount of insanity in New South Wales and in England, compared with their respective populations, is about the same. The greatest proportion of lunacy in these colonies is found in Victoria, and the lowest in Western Australia, Tasmania, and South Australia.

The following figures show the number of insane persons per thousand of the population in the United Kingdom, and in the Australasian colonies :—

Country.	Insane persons per 1,000 of population.	Country.	Insane persons per 1,000 of population.
England..................	2·9	Queensland	3·0
Scotland	2·9	South Australia	2·6
Ireland	3·2	Western Australia ...	1·6
New South Wales ...	2·9	Tasmania	2·3
Victoria..................	3·5	New Zealand	3·2

The percentage of deaths of insane persons is comparatively light. The following table has been computed on the basis of the average number of patients resident in hospitals for the insane :—

Year.	Percentage of deaths of average number resident.			Year.	Percentage of deaths of average number resident.		
	Males.	Females.	Total.		Males.	Females.	Total.
1887	6·64	7·03	6·79	1893	8·37	5·88	7·42
1888	7·59	6·31	7·10	1894	6·12	5·22	5·77
1889	7·73	6·43	7·23	1895	6·83	5·27	6·24
1890	7·00	5·73	6·52	1896	7·18	4·67	6·22
1891	8·42	5·65	7·39				
1892	6·26	5·72	6·06	Mean...	7·21	5·79	6·67

It has been suggested that there is a very intimate connection between commercial depression and the increase in the number of insane persons admitted to the asylums of the colony. A glance at the figures for 1892 and succeeding years, during which such depression has been sorely felt, would seem to favour this view, seeing that the proportion per thousand of the population advanced from 0·52 in 1891 to 0·56 in 1892, 0·58 in 1894, and 0·57 in 1896. But these figures do not finally dispose of the question, for during the seven years which closed with 1883—a period of general prosperity—the admissions ranged from 0·72 to 0·57 per thousand. It is very probable that the most immediate effect of depressed times is to send to the asylums a number of harmless but demented persons, who in more prosperous days are supported by their relatives. On the other hand, the quota of admissions to asylums in prosperous times is maintained by insanity induced directly or indirectly by the means of indulgence which high wages and large gains commonly afford. The number of admissions to the hospitals for insane, and the proportion per 1,000 of the mean population, are shown below :—

Year.	Admissions.	Proportion to population per 1,000.	Year.	Admissions.	Proportion to population per 1,000.
1877	457	0·72	1888	587	0·55
1878	424	0·64	1889	550	0·50
1879	440	0·63	1890	611	0·54
1880	476	0·65	1891	596	0·52
1881	494	0·64	1892	666	0·56
1882	473	0·59	1893	688	0·57
1883	476	0·57	1894	712	0·58
1884	493	0·55	1895	715	0·57
1885	567	0·60	1896	740	0·57
1886	567	0·58			
1887	532	0·52		Mean	0·58

Until June, 1893, there was no law in force in this colony to prevent the influx of insane persons, and, as a consequence, the splendid hospitals which the bounty of the Government has established for the treatment of the insane were the means of burdening the community with the care of unfortunate persons belonging to other countries where the treatment meted out to the insane is less generous or less scientific than in New South Wales. On the date mentioned, Act 56 Vic. No. 23 came into force. Section 4 of this measure renders the owner, charterer, agent or master of a vessel liable for the maintenance of any insane person landed in the colony. During the year 1896 there were four admissions of persons from outside the colony, the cost of maintaining whom was charged to the persons liable under the statute.

The following figures show the birthplaces of patients under care in the hospitals for the insane during the year 1896 :—

Country.	No. of Patients.	Percentage of total.	Country.	No. of Patients.	Percentage of total.
New South Wales...	1,685	36·70	France	25	0·54
Other British Colonies	267	5·82	Germany	100	2·18
England..................	966	21·04	China	87	1·90
Scotland	210	4·57	Other countries......	243	5·29
Ireland..................	1,008	21·96			

In this table and the two following the figures represent the total number of patients under care during the year 1896, and not the number remaining on the register on the 31st December, as previously given. It will be seen from the figures set down above that the number of persons under restraint who are natives of this colony forms only 36·70 per cent. of the total, whilst, it may be pointed out, the native-born element of the total population is above 64 per cent. Of the British-born patients, England contributes over one and a half times the number that her population in this country would warrant, and Ireland nearly three and a third times the number.

The ages of the 4,591 insane patients under care during 1896 were as appended. Nearly one half of the whole number—46·07 per cent.—were between the ages of 30 and 50 years.

Ages of Insane.	No. of Patients.	Percentage of all ages.
Under 5 years	8	0·17
5 and under 10 years	44	0·96
10 ,, 15 ,,	57	1·24
15 ,, 20 ,,	111	2·42
20 ,, 30 ,,	662	14·42
30 ,, 40 ,,	1,110	24·18
40 ,, 50 ,,	1,005	21·89
50 ,, 60 ,,	898	19·56
60 ,, 70 ,,	471	10·26
70 ,, 80 ,,	186	4·05
80 ,, 90 ,,	36	0·78
90 years and upwards	3	0·07

Juvenile lunatics are as a rule sent to the Hospital for the Insane at Newcastle—an asylum which is set apart for imbecile and idiotic patients; so that of the 109 mentioned in the foregoing table as being under 15 years of age, the majority were in that institution.

The major portion of the persons under restraint in 1896 were single. Amongst the married and widowed, females largely predominated.

Conditions as to Marriage.	Males.	Females.	Total.
Single	1,918	758	2,676
Married	575	748	1,323
Widowed	109	189	298
Unascertained	217	77	294

It is popularly supposed that the principal cause of insanity is intemperance. The experience of this colony, however, does not bear out this opinion. The amount of insanity directly due to drink, though certainly large, is not so considerable as that due to other causes. As far as the records of the hospitals show, the proportion of persons admitted suffering from insanity traceable to intemperance was not more than 9·99 per cent. of the total admissions for the ten years ending with 1896.

Persons suffering from mania induced by excess of drink recover comparatively quickly, and at any one time their number in the hospitals for the insane is scarcely more than 5·5 per cent. The most potent cause appears to be hereditary influence. How far this is productive of insanity cannot, however, be exactly determined; for although the Inspector-General of the Insane, a high authority on lunacy, has ascertained that hereditary influence and congenital defect can be credited with only 11·61 per cent. of the total insanity, this percentage gives no idea of the actual amount of hereditary insanity in the colony. Of the large number of patients the causes of whose insanity is unknown, it is believed that in most instances the insanity is due to hereditary influence; and even in those cases where the primary cause of insanity has been ascertained, there is a strong presumption that many of the patients have inherited an insane neurosis.

In the following table will be found the percentages of the various causes of insanity. The calculations are made on the apparent or assigned causes in the cases of all patients admitted into the asylums and licensed houses for the insane during the ten years 1887–1896 :—

Cause of Insanity.	Percentage of causes of male insanity.		Percentage of causes of female insanity.		Percentage of total insanity.	
Moral :—						
Domestic trouble (including loss of relatives and friends)	1·25	11·94	6·18	16·89	3·19	13·89
Adverse circumstances (including business anxiety and pecuniary difficulties)	5·23		2·03		3·97	
Mental anxiety and "worry" (not included under above two heads), and overwork	2·63		2·84		2·71	
Religious excitement	1·29		2·23		1·66	
Love affairs (including seduction)	0·28		1·55		0·79	
Fright and nervous shock	0·18		1·39		0·65	
Isolation	0·75		0·57		0·68	
Nostalgia	0·33		0·10		0·24	
Physical :—						
Intemperance in drink	13·22	42·23	5·04	40·24	9·99	41·44
Do (sexual)	0·50		0·71		0·59	
Venereal disease	1·03		0·03		0·64	
Self-abuse	1·93		0·03		1·18	
Sunstroke	2·46		0·54		1·70	
Accident or injury	3·43		0·98		2·46	
Pregnancy	......		0·78		0·31	
Parturition and the puerperal state	......		7·97		3·14	
Lactation	......		1·45		0·57	
Uterine and ovarian disorders	......		1·25		0·49	
Puberty	0·79		0·71		0·76	
Change of life	......		3·04		1·20	
Fevers	0·13		0·58		0·31	
Privation and overwork	0·94		0·47		0·76	
Epilepsy	6·37		5·20		5·91	
Phthisis	0·29		0·17		0·24	
Disease of skull and brain	2·81		0·95		2·08	
Old age	4·48		3·72		4·18	
Other bodily diseases and disorders	3·54		6·25		4·60	
Excess of opium and cocaine	0·31		0·37		0·33	
Previous attacks	9·24	19·50	10·17	24·59	9·61	21·51
Hereditary influence ascertained	5·23		8·95		6·70	
Congenital defect ascertained	4·77		5·13		4·91	
Other ascertained causes	0·26		0·34		0·29	
Unknown	......	26·33	......	18·28	......	23·16

During the year 1896 the deaths of persons afflicted with lunacy numbered 231, viz., 165 males and 66 females. The following are th causes of death, and the number who died from each disease :—

Cause of Death.	Males.	Females.	Total.
Cerebral Disease :—			
Apoplexy and paralysis	7	1	8
Epilepsy and convulsions	13	4	17
General paralysis	46	4	50
Maniacal and melancholic exhaustion and decay	4	5	9
Inflammation and other diseases of the brain, softening, tumour, &c.	19	7	26
Thoracic Disease :—			
Inflammation of lungs, pleura, and bronchi	8	11	19
Pulmonary consumption	17	8	25
Disease of heart and blood-vessels	5	5	10
Asthma	1	......	1
Abdominal Disease :—			
Inflammation and ulceration of stomach, intestines, and peritoneum	1	8	9
Dysentery and diarrhœa	2	1	3
Albuminuria	4	1	5
Disease of bladder and prostate	1	......	1
Disease of liver	......	1	1
Disease of uterus	......	1	1
General debility and old age	27	7	34
Gangrene	1	......	1
Septicæmia	......	1	1
Cancer	2	1	3
Locomotor ataxy	1	......	1
Leucocythæmia	1	......	1
Accident	3	......	3
Suicide	2	......	2
Total	165	66	231

Of the above total, 28 males and 11 females were from 70 to 90 years of age, so that the malady of lunacy is not incompatible with longevity.

The average weekly cost of maintaining insane patients in the hospitals during the year 1896 was about 10s. 5¾d. per head, of which the State paid 9s. 0¼d., the balance being made up by contributions from the estates of the patients themselves, or by their friends. The subjoined table shows the average weekly cost per head, and the average private contributions, from 1887 to 1896:—

Year.	Cost per head to State.	Contribution per head from private sources.	Total weekly cost per head.
	s. d.	s. d.	s. d.
1887	10 6	1 5½	11 11½
1888	10 2	1 6¼	11 8¼
1889	11 3¼	1 6½	12 9¾
1890	10 4¼	1 7	11 11¼
1891	10 5¼	1 8	12 1¼
1892	10 2	1 9½	11 11½
1893	9 6¼	1 8½	11 2¾
1894	8 11	1 8	10 7
1895	9 4	1 7¼	10 11¼
1896	9 0¼	1 5½	10 5¾
Average for 10 years	9 11½	1 7¼	11 6¾

The following table gives a distribution of the average weekly expenditure per patient in each of the hospitals for the insane during the year 1896. The Kenmore hospital has only been recently established, and has the burden of a comparatively heavy initial cost. This institution is fitted with every convenience which experience and humanity can suggest:—

Hospital.	Daily average number of Patients.	Average Weekly Expenditure per Patient.					
		Salaries and Fees.	Provisions, Stimulants, etc.	Medicines and Surgical Instruments	Stores, Fuel and Light, and incidentals.	Total Weekly Cost.	Net Cost to State.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Gladesville	821	0 5 0¼	0 3 11	0 0 1	0 2 4¾	0 11 5	0 9 6¾
Parramatta	1,095	0 3 11	0 3 3	0 0 1	0 2 1½	0 9 4½	0 8 8¼
Callan Park	824	0 4 10½	0 4 1¾	0 0 1¼	0 2 5	0 11 6½	0 8 10¾
Newcastle	311	0 3 8¼	0 2 5¾	0 0 0½	0 2 5¼	0 8 7¾	0 7 6¼
Rydalmere	402	0 3 8½	0 2 10½	0 0 0¾	0 2 4	0 8 11¾	0 8 1¾
Kenmore	153	0 5 10¾	0 4 9½	0 0 2¼	0 4 1½	0 15 0	0 14 7½

During 1896 the total expenditure on the insane amounted to £103,928, of which £99,900 was the cost of maintenance of the various hospitals, and £204 was paid on account of New South Wales patients in South Australian institutions. From that amount there falls to be deducted a sum of £13,913 derived from collections, etc., leaving the net cost to the State at £90,015. The amount received on account of patients in the State hospitals was £13,857, leaving the net annual cost in these institutions at £86,043, equal to £23 9s. 5d. per patient. In the course of the last ten years the number of patients resident in the hospitals for the insane has increased by 36 per cent., while during the same period the increase in expenditure has only equalled 16½ per cent.

Criminal lunatics are confined at Parramatta. At the end of 1896 the number in confinement was 58, of whom 44 were males and 14 females, as compared with 49 twelve months before. The offences for which the criminal insane are detained are amongst the blackest in the calendar, as will be seen from the following table, which refers to the number in the institution on the 31st December, 1896 :—

Crimes committed by the Insane.	Number of Insane.		
	Males.	Females.	Total.
Murder	19	6	25
Attempt to murder	1	1	2
Rape	1	......	1
Indecent assault	2	......	2
Unnatural offence	1	......	1
Cutting and wounding, shooting with intent, etc.	13	4	17
Horse stealing	1	......	1
Burglary	1	......	1
Forgery and uttering	......	1	1
Vagrancy	......	1	1
Inflicting grievous bodily harm	2	......	2
Breaking and entering with intent	2	......	2
Obscene language	......	1	1
Assault and robbery	1	......	1
Total	44	14	58

Detention in the hospitals for the insane is usually terminated by the discharge of the patient on recovery, or for probation when relief has been afforded, to which, of course, must be added removal by death. Omitting the few cases where patients absconded, the following figures give the departures during the last ten years :—

Year.	Discharged.				Died.	
	Recovered.		Relieved.			
	Males.	Females.	Males.	Females.	Males.	Females.
1887	115	99	11	14	111	74
1888	167	108	20	11	132	68
1889	135	109	8	4	138	71
1890	141	116	21	8	128	65
1891	168	129	11	17	167	66
1892	154	107	17	14	122	69
1893	156	130	21	21	172	74
1894	162	134	27	27	130	69
1895	175	133	32	20	151	72
1896	185	147	26	19	165	66
Total ...	1,558	1,212	194	155	1,416	694

During the period included in the above table 5,562 male and 3,553 female patients were under treatment; therefore the proportion per cent. of the total number belonging to each class was—

	Per cent. of Patients.	
	Males.	Females.
Recovered	28·01	34·11
Relieved	3·45	4·36
Died	25·46	19·53

The returns for the same period show the following results :—

	Males.	Females.
Average annual discharges	175	137
Average annual readmissions	43	33

whence it appears that of the patients discharged as recovered or relieved, some 25 per cent. of males and 24 per cent. of females are readmitted. Deducting, therefore, from the number of discharges the probable cases of relapse, it will be found that on an average the annual number of permanent recoveries, temporary recoveries, and deaths will be represented in the following proportions :—

	Males.	Females.
Permanent recoveries	418	500
Temporary recoveries	135	163
Deaths	447	337

Hence it may be said that out of every thousand males who become inmates of asylums for the insane, 418 will be released from their suffering by recovery, and 582 only by death; and of females, the proportion will be 500 by recovery, and 500 by death. As the average age of the patients does not differ greatly in the case of both sexes, the comparison may be accepted as a fair one, especially as the average time of residence in the asylum is also about the same.

The average period of residence can be determined indirectly from a comparison between the number of persons admitted and those resident on a given date, and it would appear that for the ten years which closed with 1896, the average was 5·26 years for males and 5·12 for females.

As the annual cost of each patient is nearly £23 10s., every person who is admitted to the hospitals for the insane entails a loss to the State of about £122.

INSTRUCTION, SCIENCE, AND RELIGION.

Instruction.

THE history of primary education in New South Wales is naturally divided into four periods. During the first period, which lasted until 1848, the system in force was purely denominational, the Government granting to the heads of religious bodies assistance in proportion to the amount expended by them for educational purposes. There was no provision for the establishment of schools entirely under State control, and considerable dissatisfaction was the result. As early as 1834 there had been attempts to secure a modification of the system in force, and in 1839 a grant was made for the purpose of imparting instruction, free from sectarian influence, to the children of those persons who objected to denominational education. It was not, however, until 1844 that any definite steps were taken in the direction of effecting a change in the educational policy of the State. In that year a Committee of the Legislative Council reported in favour of the adoption of the Irish National School system, and, in accordance with this recommendation, an Act was passed in 1848 constituting two Boards, to one of which was entrusted the administration of denominational education, and to the other the undenominational, or, as it was called, the National system; primary education in the colony thus entering upon its second period. This anomaly of two rival Boards, after existing for eighteen years, was abolished by the Public Schools Act of 1866, which, though providing for the continuance of the two distinct classes of schools, placed all schools receiving aid from the State under the control of a Board appointed by the Government, and styled the Council of Education, the public schools being entirely administered by this Board, and the denominational schools governed in conjunction with the various religious bodies by whom they had been founded. Although the system established by this Act was essentially one of transition, education nevertheless made considerable progress during the period when it was in force. It was, however, found impossible to maintain this dual system, not only on account of its intrinsic defects, but because the principle of granting State aid to religious schools was repugnant to the feelings of the majority of the people, and in 1880 State aid to denominational education was abolished by an Act passed under the auspices of Sir Henry Parkes, and the colony entered upon the fourth, and present, period of the history of primary instruction.

Under the Public Instruction Act of 1880, which received the Royal assent on the 16th April in that year, the entire educational system of the colony was remodelled. In the first place, the Education Act of 1866 was repealed, the Council of Education dissolved, and the control of educational matters placed in the hands of a Minister for Public Instruction. Provision was made for the establishment and maintenance of public schools, to afford primary instruction to all children without sectarian or class distinction; of superior public schools, in which additional lessons in the higher branches might be given; of evening public schools, with the object of instructing persons who had not received the advantages of primary education while of school age; and of high schools for boys and girls, in which the course of instruction should be of such a character as to complete the public school curriculum, or to prepare students for the University. It was provided that in all schools administered under the Act the teaching should be strictly non-sectarian; but the words "secular instruction" were held to include general religious teaching, as distinguished from dogmatical or polemical theology. The history of England and of Australia, it was decided, should form part of the course of secular instruction. Four hours during each school day were to be devoted to secular instruction exclusively; but it was provided that another hour each day might be set apart for religious instruction, to be given in a separate class-room by a clergyman or religious teacher of any persuasion to children of the same persuasion whose parents had no objection to their receiving such religious instruction.

This provision permitting religious instruction to be given to scholars in State schools has been taken advantage of to some extent by several of the denominations. Eleven salaried teachers are employed by the Church of England in the Diocese of Sydney to give special religious instruction in public schools. One of the Bishop's chaplains holds the appointment of Diocesan Inspector of Schools, but he has no authority outside the classes for special religious instruction. The Presbyterian and Wesleyan clergy also visit the public schools for the purpose of imparting religious instruction to children belonging to those denominations.

It is compulsory for parents to send their children between the ages of 6 and 14 years to school for at least seventy days in each half-year, unless just cause of exemption can be shown. Penalties are provided by the Act for breaches of this provision. But although education is compulsory, it is not altogether free, for parents are required to pay a weekly fee of 3d. per child, but not exceeding 1s. in all for the children of one family. Power is given, however, to the Minister or the Local Board to remit the fees where it is shown that the parents are unable to pay. The fees, except those received from pupils attending evening schools, are not the property of the teacher, but are paid into the Consolidated Revenue Fund. School children are allowed to travel free by rail to the nearest public school.

Other sections of the Act permit of the establishment of provisional schools, and the appointment of itinerant teachers in remote and thinly-populated districts. Provision is also made for the establishment of training schools for teachers. It is enacted that Local Boards shall be appointed, whose duty it is to visit and inspect the public schools placed under their supervision, to suspend teachers in cases of misconduct not admitting of delay, to endeavour to induce parents to send their children regularly to school, and to report the names of parents or guardians who refuse or fail to educate their children. It should be observed that parents are not compelled to send their children to the public schools; they have full choice in the matter, the State only insisting that a certain standard of education shall be attained, no matter whether the instruction be imparted in public or private schools.

Great as has been the material progress of the colony, its intellectual advancement has been much more rapid. At the Census of 1881, out of the 751,468 persons enumerated, there were 195,029, or very nearly 26 per cent., unable to read; while at the Census of 1891, out of a population (exclusive of aborigines) of 1,123,954 persons, only 244,398, or 21·7 per cent., were returned as unable to read. Included in this number were 165,781 children of 4 years of age and under, so that there were only 78,617 persons, or 7 per cent. of the population 5 years of age and over, who were unable to read—a very small proportion when it is remembered that this number includes Chinese, Polynesians, and others.

Another gauge of educational progress will be found in the entries of the marriage registers signed by marks. The earliest official record of marriages is that for 1857. Of 5,804 persons married during that year, 1,646, or 28·4 per cent., were unable to sign the marriage register; while in 1896 the number of such persons was only 371, or 2·2 per cent. of the total number married. A generation has passed away during the period embraced by the following table, and the improvement shown thereby cannot fail to be interesting:—

Year.	Persons married.	Percentage signing with marks.	Number signing with marks.	Year.	Persons married.	Percentage signing with marks.	Number signing with marks.
1857	5,804	28·4	1,646	1886	15,622	4·0	622
1860	5,890	26·5	1,559	1887	15,180	3·5	531
1865	7,156	22·1	1,579	1888	15,688	3·7	587
1870	7,696	18·2	1,403	1889	15,060	3·4	504
1875	9,210	12·3	1,129	1890	15,752	2·7	426
1880	11,144	6·7	743	1891	16,914	3·1	521
1881	12,568	6·9	872	1892	16,044	3·1	491
1882	13,896	5·6	782	1893	15,498	2·2	335
1883	14,810	6·1	903	1894	15,332	1·9	292
1884	14,964	5·2	783	1895	16,060	2·1	336
1885	15,236	4·7	723	1896	16,990	2·2	371

he progress which this table shows is marvellous; and, moreover, in
sidering the proportion of persons signing with marks in 1896, the
must not be lost sight of that, of the 371 persons who so affixed their
atures to the marriage registers in that year, a large number were
born in New South Wales, and arrived too late in life to avail
nselves of its educational system. In some of the other colonies the
ree of illiteracy, as disclosed by the marriage registers, is even less
n in New South Wales, as will be seen from the following figures,
ch in every case are for the year 1896 :—

	Percentage signing with marks.
New South Wales	2·2
Victoria	0·7
Queensland	2·5
South Australia	1·4
Western Australia	6·0
Tasmania	5·0
New Zealand	0·7

he percentage of persons signing with marks in Western Australia and
nania is, it will be seen, much higher than in any of the other colonies.
nly an imperfect comparison of the number of children receiving in-
ction during past years can be made, as the number in actual attend-
cannot be distinguished from the number enrolled. The following
e gives the number of schools, both public and private, including
University, and the number of enrolled scholars for a period of
y-one years; and though it cannot be taken as absolutely correct,
ay be relied on as being fairly indicative of the educational progress
e colony. Victoria, it should be remembered, was separated in 1851,
e in 1861 Queensland had also been formed into a separate colony:—

Year.	Mean Population of the Colony.	Schools.	Children enrolled.	Percentage of population enrolled.
1836	77,096	85	3,391	4·4
1841	149,669	209	9,632	6·4
1846	196,704	394	19,033	9·7
1851	197,168	423	21,120	10·7
1856	286,873	565	29,426	10·3
1861	357,978	849	37,874	10·6
1866	428,813	1,155	59,594	13·9
1871	517,758	1,450	77,889	15·0
1876	614,181	1,629	131,620	21·4
1881	778,690	2,066	197,412	25·4
1886	989,340	2,833	226,860	22·9
1891	1,165,300	3,175	252,947	21·7
1892	1,197,650	3,236	258,582	21·6
1893	1,223,370	3,317	257,875	21·1
1894	1,251,450	3,386	259,466	20·7
1895	1,277,870	3,463	270,176	21·1
1896	1,297,640	3,483	277,675	21·4

The number of children given above as enrolled in the various schools exceeds, in almost every case, the actual school attendance, as the gross enrolment for the year is given, and not the mean for each quarter. The latter information cannot be obtained except for recent years, but the figures as they stand give a basis of comparison which is not without value.

The following table shows the gross enrolment of distinct children during the ten years which closed with 1896, as well as the quarterly enrolment, in the public and private schools of the colony, omitting the University. The mean quarterly enrolment may be taken as giving the nearest approximation to the number of children actually under tuition in State and private schools :—

Year.	Schools.	Teachers.	Scholars.		
			Gross enrolment.	Mean quarterly enrolment.	Percentage of children of school age in mean quarterly enrolment.
1887	2,925	5,714	224,510	197,712	81·3
1888	2,950	5,767	226,856	201,083	80·7
1889	3,073	5,886	232,840	206,326	80·9
1890	3,120	6,574	237,853	212,969	81·3
1891	3,161	7,028	250,691	223,296	82·6
1892	3,221	7,353	256,388	231,954	82·8
1893	3,302	7,305	255,678	231,728	81·0
1894	3,371	7,419	257,281	232,694	79·5
1895	3,447	7,422	268,047	243,726	81·4
1896	3,467	7,529	275,570	250,992	82·3

In the gross enrolment for 1896 the 1,193 children in reformatories, industrial schools, and charitable institutions were not included. Taking these into account, 82·7 per cent. of all the children of school age were receiving instruction in schools. The ages of children enrolled at State and private schools during 1896 were as follow :—

Age Period.	State Schools.	Private Schools.	Total.
Under 6 years ……	13,052	6,929	19,981
6 and under 14 years	191,256	40,376	231,632
14 years and over …	17,295	6,662	23,957
Total ………	221,603	53,967	275,570

Under the Public Instruction Act it is only compulsory to send children between the ages of 6 and 14 years to school ; but children of

5 years of age are received at the public schools, and, as will be seen from the figures given, many scholars of that age are in attendance at State and private schools, as well as a very considerable number who have passed the school age.

According to the Census of 1891, the number of children of school age in New South Wales—that is to say, those who were not less than 6 years of age, and had not passed the age of 14—was 211,880, of whom 184,860 were receiving instruction in public and private schools and public institutions, namely, 148,870 at State schools, and the remainder at the various private and denominational schools, reformatories, and charitable institutions in the colony; 10,810 were receiving instruction at home; and 16,210 were under no tuition, but this number must have included a number of boys who had left school. The number of children of school age receiving instruction formed 92·35 per cent. of the total; and in addition there were 26,981 children outside the limits of school age who were in attendance at State schools, 11,179 at private and denominational schools, as well as 283 students at the University of Sydney. The total known enrolment at private schools during the December quarter of 1896 was 53,967, and the average attendance, 43,069. Of the net yearly enrolment at the State schools, 67·1 per cent. of the children attended school 70 days or more in the first half of 1896, and 72·4 per cent. in the second half of the year.

Owing to the sparseness of the population in nearly all the country districts of the colony, the compulsory clauses of the Instruction Act cannot be strictly enforced. Nevertheless, the number of children growing up in absolute ignorance is by no means great, and, though the proportion of such children cannot be even approximately determined, there is sufficient evidence to warrant the conclusion that it is steadily decreasing. At the Census periods of 1861, 1871, 1881, and 1891, the degree of education of every 10,000 children from 5 and under 10 years of age was as follows:—

	1861.	1871.	1881.	1891.
Read and write	2,355	3,470	4,413	5,377
Read only	3,289	2,752	1,982	1,368
Unable to read	4,356	3,778	3,605	3,255

Taking the children from 10 and under 15 years, the comparison is still more satisfactory:—

	1861.	1871.	1881.	1891.
Read and write	6,769	7,666	8,804	9,705
Read only	1,854	1,292	614	143
Unable to read	1,377	1,042	582	152

The steady decrease in the proportion of illiterate children from 1861 to 1871, and from 1871 to 1881, is plainly visible from the above tables, and the Census of 1891 showed that this satisfactory decrease continued.

STATE SCHOOLS.

When the present Public Instruction Act came into operation on the 30th April, 1880, the Council of Education ceased to exist, and handed over to the new administration the schools which at that time were under its control. At the date mentioned there were maintained or subsidised by the Government, 1,220 schools, attended by 101,534 scholars, thus distributed :—

	No. of Schools.	No. of Pupils.
Public	705	68,823
Provisional	313	8,312
Half-time	97	1,683
Denominational	105	22,716
Total	1,220	101,534

At the close of 1882 the connection of the denominational schools with the State ceased, and the subsequent year is marked, as was to have been expected, by a considerable falling off in the number of children who were receiving their education at the expense of the State. The check only operated for a short period, as the year 1884 showed a recovery of more than the ground lost. This will be seen by the following table, which shows the enrolment and attendance of children at State-supported schools under the Public Instruction Act only :—

Year.	Gross enrolment of distinct children.	Quarterly enrolment.	Average attendance.
1882	159,490	134,872	90,944
1883	155,824	130,205	88,546
1884	167,134	139,159	95,215
1885	180,929	146,570	100,462
1886	179,990	153,244	105,538
1887	184,060	157,262	106,408
1888	186,692	160,919	112,220
1889	191,215	164,701	114,569
1890	195,241	170,357	116,665
1891	205,673	178,278	122,528
1892	210,641	186,207	132,580
1893	210,277	186,327	128,322
1894	206,265	181,678	130,089
1895	216,396	192,075	139,978
1896	221,603	197,025	142,192

From the time of the withdrawal of aid from denominational schools up to the end of 1896 the increase in the average quarterly enrolment at State schools was 46·1 per cent. It will be noticed that the enrolment in 1894 was considerably less than in the previous year. The decrease was due to a number of causes, chief amongst which was the presence of epidemics in the early part of the year, and of continuous wet weather in the September quarter. There is no doubt, too, that the depression in trade induced many parents to keep their children from school, either on account of inability to pay the fees or in order to secure the assistance they might render to the home. In the course of the year, also, the minimum age at which children were received at school was raised from 5 to 6 years during a period of eight or nine months. The increase in the average quarterly enrolment to the end of 1896 was as follows :—

Year.	Per cent.	Year.	Per cent.
1885	5·3	1891	4·6
1886	4·6	1892	4·4
1887	2·6	1893	0·1
1888	2·3	1894	*2·5
1889	2·4	1895	5·7
1890	3·4	1896	2·6

* Decrease.

The number of schools under the direct control of the Department during 1896 was 2,574, or 2,785 departments, thus classified :—

	Departments.
High Schools	5
Public Schools—Superior	249
,, Primary	1,660
Provisional Schools	310
Half-time Schools	497
House-to-house Schools	44
Evening Schools	20
Total	2,785

These schools provided accommodation for 239,354 pupils, being an increase of accommodation for 1,421 pupils more than the number provided for in the previous year.

Below will be found a statement giving the number of State Schools in each of the Australasian colonies in 1896, together with the number of scholars in average attendance :—

Colony.	Schools.	Teachers.	Scholars in Average Attendance.	Average attendance of Pupils per School.
New South Wales	2,574	4,442	142,192	55
Victoria	1,883	4,497	138,241	73
Queensland	772	1,717	54,316	70
South Australia	639	1,164	40,449	63
Western Australia	150	281	6,470	43
Tasmania	270	489	11,508	43
New Zealand	1,533	3,515	109,253	71
Australasia	7,821	16,105	502,429	64

According to the Departmental report for the year 1895, all children attending the public schools of the colony are taught to read; 90 per cent. are instructed in writing, arithmetic, music, and drill, and receive scriptural and moral as well as object lessons; 88 per cent. in drawing; 80 per cent. write to dictation; 40 per cent. are instructed in the rules of English grammar; and 39 per cent. are taught geography and history; while over 80 per cent. of the girls receive instruction in needlework. The following table shows the number of children who reached the standard of proficiency in each of these subjects in 1896:—

Subject.	Number of Pupils Examined.	Number of Pupils Passed.	Percentage up to or above Standard.
Reading—All pupils	154,868	132,228	85
In ordinary prose only	59,906	52,963	88
Writing—All pupils	154,378	132,566	85
On paper only	93,439	81,218	86
Dictation	122,291	96,943	79
Arithmetic—All pupils	153,231	114,382	74
Higher rules only	23,456	16,662	71
Grammar—All pupils	63,283	47,076	74
Advanced only	31,450	23,338	74
Geography—All pupils	63,292	48,933	77
Advanced only	33,769	26,177	77
History—English	62,424	45,096	72
Australian	12,981	9,443	72
Scripture and Moral Lessons	149,306	115,558	77
Drawing	148,896	119,114	79
Needlework	55,475	49,287	88
Music	141,593	112,772	79
Drill	146,738	120,642	82
Object Lessons	147,788	115,803	78

The other subjects are only taught in the fourth and fifth classes. In 1896, 8,609 pupils were examined in Euclid, of whom 75 per cent. passed; 3,183 in algebra, of whom 78 per cent. passed; 6,546 in mensuration, of whom 67 per cent. passed; 88 in trigonometry, of whom 76 per cent. passed; 7,059 in natural science, of whom 79 per cent. passed; and 2,902 in Latin and 2,549 in French, of whom there passed respectively 72 and 75 per cent.

The State provides separately the necessary facilities for acquiring technical knowledge under a system of training about which more will be said further on.

The teachers in the public schools of the colony at the end of 1896 numbered 4,442, of whom 2,332 were males, and 2,110 females. This was a decrease of 35 from the number of the previous year. The average number of pupils per teacher, on the basis of the mean quarterly enrolment, was 44, and the average attendance per teacher, 32.

while the average quarterly enrolment of children per school department was 71. The following table shows the classification of the teaching staff at the end of 1896 :—

Grade.	Males.	Females.	Total.
Principal Teachers............	1,725	521	2,246
Mistresses of Departments	....	210	210
Assistants	271	613	884
Students in Training Schools	25	26	51
Pupil-teachers..................	299	660	959
Work-mistresses...............	....	67	67
High School Teachers	12	13	25
Total..................	2,332	2,110	4,442

The teachers obtain promotion only after passing a series of examinations, which are so framed as to efficiently test their progress in literary attainments, and their skill in imparting knowledge. There are ten classes of public schools. In these, the salaries paid to male married teachers range from £123 to £422, inclusive of quarters valued at £20 to £72, and with a deduction of £12 from salaries not exceeding £254, where the Department provides assistance in teaching sewing. Unmarried male teachers in charge of schools receive from £91 to £350, and female teachers from £91 to £159. Teachers in half-time schools are paid at the same rates as teachers in public schools of corresponding classification. The salaries of mistresses in charge of girls' departments range from £170 to £250; and of those in charge of infants' departments, from £150 to £180. Assistant male teachers receive from £103 to £225, and assistant female teachers from £95 to £150. Ex-students of training schools acting as assistants receive £96 to £113 in the case of males, and £84 to £96 in the case of females. Ex-pupil teachers, male or female, acting as assistants, receive £90 if they have passed their final examination, and if not, £72. The salaries of work-mistresses range from £86 to £114 ; of provisional teachers, from £72 to £88 ; of male pupil-teachers from £40 to £68 ; and of female pupil-teachers, from £24 to £46. Teachers in house-to-house schools receive £4 10s. per head of average attendance, with a maximum of £90. Special allowances may be granted to teachers stationed in remote localities, where the cost of living is high.

The supply of teachers is obtained from three sources—the two training colleges ; ex-pupil teachers who do not enter a training college ; and young persons, not less than 18 years of age, who have been mostly educated in the public schools of the colony, and who undergo a short course of training under qualified teachers. Few teachers trained outside the colony find employment under the department. At the Fort-street Training School for males 26 students attended the course of training during the year; while at the Hurlstone Training School for female students, the number in residence was 29. At the beginning of 1895 new regulations came into force, under which the period of training in these schools was reduced from two years to twelve months, with the provision that students who obtain a certain classification at the end of the year's training shall be granted a University Scholarship for a period of twelve months, renewable for a second year under certain conditions. In 1896 the pupil-teachers in the service numbered 959, of whom 299 were males and 660 females. The pupil-teachers are carefully selected, and are taken on probation for three months before they are permanently employed. If approved, they have to serve a term of four years, when if they are successful in passing the necessary examinations they may enter one of the training schools.

The local supervision of the public schools is placed in the hands of School Boards appointed in the various districts of the colony, under the provisions of the Public Instruction Act. These Boards are supposed to exercise a general oversight in regard to the public schools in their districts, but cannot interfere with the internal discipline or management of the schools, which remain under the direct control of the Minister of Public Instruction, through the inspectors and other officers of his department. The total number of Boards in operation at the close of 1896 was 288.

The average cost per child in average attendance at the public schools has greatly varied, as will be seen by the following table, which gives the amounts for the last ten years:—

Year.	For school premises.			For the maintenance of schools.			For administration and training schools.			Total.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
1887	1	2	6½	4	3	7½	0	11	3½	5	17	5½
1888	0	15	1	4	1	7¾	0	9	8½	5	6	5¼
1889	0	19	1½	4	2	6¼	0	9	3¼	5	10	11
1890	1	5	9½	4	5	3	0	9	8¼	6	0	8¾
1891	1	11	2¾	4	5	0½	0	9	4	6	5	7¼
1892	1	3	9¼	4	3	6¼	0	8	7¼	5	15	10¾
1893	0	17	7	4	5	8½	0	8	2	5	11	5½
1894	0	11	4¼	4	2	9¼	0	7	6	5	1	7½
1895	0	14	11	3	18	9¼	0	6	7	5	0	3¼
1896	0	7	11¾	3	17	3¼	0	6	4¼	4	11	7¼

In considering the question of the expenditure on education in New South Wales during past years, it should be borne in mind that the expenses contingent upon the necessity of obtaining efficient results in a country of such a vast extent and so sparsely populated were unavoidably great: School-houses had to be built, teachers required training, and the whole educational machinery had to be provided in many parts of the country where there was, perhaps, only a denominational school, or, just as likely, no educational establishment at all. To these initial expenses was due, in a great measure, the relatively high cost of public education in the first few years after the passing of the Act of 1880. In 1883, for instance, the total cost per child in average attendance was not less than £9 5s. 7d. In 1887 this had been reduced to £5 17s. 5½d., and since that year there has been a further decrease to £4 11s. 7¼d. It may be expected that the cost will not at any time greatly exceed the present figures, as the schoolhouses have been built with due regard to the increase in the number of scholars which must be anticipated in a young, promising, and growing colony. Most of the school-buildings, too, are of a character that would do credit to the most advanced countries of the world, the greatest care having been taken to embody all the improvements which the experience of centuries has suggested in older communities.

The following figures, showing the cost of each child in average attendance at the public schools of the seven colonies in 1896, exclusive of the expenditure on buildings, disclose the fact that in New South Wales the cost is less than in Western Australia and Victoria:—

	Cost per child in average attendance.
New South Wales	£4 3 7½
Victoria	4 4 10¾
Queensland	3 11 6¾
South Australia	3 7 10¾
Western Australia	4 13 4¾
Tasmania	2 17 6½
New Zealand	3 11 1¾

It is satisfactory to note that the average cost is lower than in Victoria, especially when it is borne in mind that the smaller extent of the territory of the latter colony, and the greater travelling facilities offered by a railway system proportionately much larger, must necessarily reduce the cost of education. In South Australia settlement is confined to certain districts in which the population is more compact, whilst the whole of the territory of New South Wales, if the extreme west be excepted, may be regarded as everywhere settled—at least, to such an extent as to necessitate the extension of the public school system throughout the greater part of the colony. But the spread of public instruction is considered so pre-eminently important an object that the Legislature has at all times expressed its readiness to make every sacrifice and to spare no expense to render efficacious the system of national education which it adopted in 1880.

The following table shows the gross expenditure by the State on primary education during the ten years ended 1896, and the annual amount per head of population:—

Year.	Total Amount.	Per head of population.	Year.	Total Amount.	Per head of population.
	£	s. d.		£	s. d.
1887	624,983	12 5	1892	768,395	13 0
1888	597,102	11 6	1893	715,219	11 10
1889	635,509	11 11	1894	661,055	10 8
1890	704,260	12 9	1895	701,827	11 1
1891	769,565	13 5	1896	651,307	10 1

A division of this expenditure under the two heads of "School Premises" and "Maintenance and Administration" is shown below, and the deduction of the school fees received gives the net cost to the State during each of the ten years in question:—

Year.	Number of Schools.	Gross enrolment of distinct Pupils.	Expenditure on school premises.	Expenditure on maintenance of Schools, including Administration, &c.	Total Expenditure.	School Fees.	Net State Expenditure.
			£	£	£	£	£
1887	2,236	184,060	119,957	505,026	624,983	63,896	561,087
1888	2,271	186,692	84,575	512,527	597,102	69,554	527,548
1889	2,373	191,215	109,576	525,933	635,509	72,318	563,191
1890	2,423	195,241	150,441	553,819	704,260	71,827	632,433
1891	2,457	205,673	191,374	578,191	769,565	75,913	693,652
1892	2,502	210,641	157,679	610,716	768,395	77,525	690,870
1893	2,520	210,277	112,855	602,364	715,219	73,268	641,951
1894	2,508	206,265	73,792	587,263	661,055	70,693	590,362
1895	2,563	216,396	104,397	597,430	701,827	73,320	628,507
1896	2,574	221,603	56,752	594,555	651,307	74,866	576,441

It will be seen that the amount directly contributed by parents towards their children's education is but a small proportion of the total cost. In 1896 the contributions of the parents came to £74,866, a sum greater by £1,546 than that received in 1895, and *less* per head in average attendance than in any year since 1887, with the exception of 1895, when the amount was the same, namely, 10s. 6d. This may be seen from the following statement, showing the gross and net cost to the State of each child in average attendance:—

Year.	Gross Expenditure.	Amount of Fees received.	Net Cost to State.
	£ s. d.	£ s. d.	£ s. d.
1887	5 17 6	0 12 0	5 5 6
1888	5 6 5	0 12 5	4 14 0
1889	5 10 10	0 12 7	4 18 3
1890	6 0 9	0 12 4	5 8 5
1891	6 5 7	0 12 5	5 13 2
1892	5 15 10	0 11 8	5 4 2
1893	5 11 5	0 11 5	5 0 0
1894	5 1 7	0 10 10	4 10 9
1895	5 0 3	0 10 6	4 9 9
1896	4 11 7	0 10 6	4 1 1

During the year 1896 free education was granted to 28,420 pupils, equal to a percentage of 12·8 of the gross enrolment of distinct children. It was explained by the Minister in his Annual Report that debts to the amount of £2,489 were cancelled during the year.

In accordance with a design long contemplated, savings' banks were opened during 1887 in connection with the public schools of the colony. At the close of 1896 there were 639 banks in operation, as compared with 632 at the close of 1895. The deposits for the year amounted to £11,467, and the sum withdrawn was £11,106. The total amount to the credit of the school banks on the 31st December, 1896, was £6,671, as compared with £6,310 at the end of 1895, and £6,049 at the end of 1894. The object aimed at in establishing these banks is to inculcate practically the principles of economy while yet the minds of the children are susceptible of deep impressions. A systematic training for this purpose is a thing to be desired in every public school, in order to engender habits of thrift amongst the children, to indoctrinate them as to the uses and effects of money that are ulterior to immediate gratifications, and to make them recognize and calculate upon poverty and degradation as the natural results of waste and improvidence.

PRIVATE SCHOOLS.

The attendance at private schools greatly increased after the withdrawal of aid from the denominational schools which had been under the control of the Education Department. Many of these establishments ceased to exist immediately on the withdrawal of State aid, and the children by whom they had been attended were transferred for the most part to the ordinary public schools of the colony. Some of the schools, however, were still maintained, chiefly those connected with the Roman Catholic Church, and thenceforth appear in the returns as private schools.

Below will be found a statement showing the number of private schools in the colony during each of the ten years 1887 to 1896, with the teaching staff and number of scholars enrolled :—

Year.	Schools.	Teachers.	Scholars.	Year.	Schools.	Teachers.	Scholars.
1887	689	1,873	40,450	1892	719	2,717	45,747
1888	679	1,854	40,164	1893	782	2,778	45,401
1889	700	1,884	41,625	1894	863	2,966	51,016
1890	697	2,393	42,612	1895	884	2,945	51,651
1891	704	2,601	45,018	1896	893	3,087	53,967

The 893 schools open during 1896 may be divided into the following classes :—

Classification.	Schools.	Teachers.	Scholars.
Undenominational	549	1,305	13,773
Roman Catholic	293	1,527	36,552
Church of England	44	185	3,099
Presbyterian	4	41	248
Wesleyan	2	28	256
Lutheran	1	1	39
Total	893	3,087	53,967

Not a few of the schools returned as undenominational are religious schools, though no definite form of religious opinions is inculcated therein. Of distinctly religious schools, those of the Roman Catholic Church comprise the great majority, numbering 85·2 per cent. of professedly denominational schools, and including 90·9 per cent. of the scholars educated therein. On the withdrawal of State assistance from denominational schools in 1882, there were in operation under the Department of Education, 75 Roman Catholic Schools, attended by 16,595 pupils; while there were also some unassisted schools connected with this Church, of which statistics were not available. In 1887 the number of schools had increased to 238, with an enrolment of 26,992 pupils ; while in 1896 the number had grown to 293, with an enrolment of 36,552. The table given below shows that during the last ten years the record is one of continuous progress :—

Year.	Schools.	Teachers.	Scholars on Roll.			Average Attendance.		
			Males.	Females.	Total.	Males.	Females.	Total.
1887	238	897	12,518	14,474	26,992	10,158	12,108	22,266
1888	247	916	12,535	14,637	27,172	10,010	11,799	21,809
1889	267	996	13,674	14,872	28,546	10,785	11,977	22,762
1890	244	1,112	13,021	15,531	28,552	10,206	12,225	22,431
1891	250	1,242	13,837	16,854	30,691	10,547	13,241	23,788
1892	243	1,268	13,973	17,244	31,217	10,820	13,292	24,112
1893	259	1,359	14,439	16,860	31,299	10,911	12,838	23,749
1894	285	1,453	16,044	19,106	35,150	12,352	14,813	27,165
1895	288	1,409	15,999	19,251	35,250	12,420	15,033	27,453
1896	293	1,527	16,603	19,949	36,552	12,967	16,004	28,971

The Church of England is the only other religious body maintaining a considerable number of schools. During 1896 the schools connected with this church numbered 44, and were attended by 3,099 pupils. At the end of 1882 there were in existence 42 Church of England Schools, with an enrolment of 11,927 children. The following table gives particulars of these schools during the past ten years :—

Year.	Schools.	Teachers.	Scholars on Roll.			Average Attendance.		
			Males.	Females.	Total.	Males.	Females.	Total.
1887	73	167	1,815	1,514	3,329	1,588	1,258	2,846
1888	66	154	1,548	1,552	3,100	1,272	1,242	2,514
1889	47	115	1,353	1,302	2,655	1,065	999	2,064
1890	64	209	1,844	1,763	3,607	1,449	1,410	2,859
1891	47	185	1,917	1,417	3,334	1,475	1,037	2,512
1892	48	188	1,749	1,472	3,221	1,388	1,125	2,513
1893	47	178	1,504	1,334	2,838	1,204	932	2,136
1894	62	246	1,852	1,623	3,475	1,445	1,237	2,682
1895	50	204	1,614	1,421	3,035	1,299	1,084	2,383
1896	44	185	1,581	1,518	3,099	1,025	1,151	2,176

HIGHER EDUCATION.

It has already been mentioned that the State has made provision for higher education by the establishment of High Schools in the metropolis and the principal centres of population. The curriculum of these schools is of such a character as to enable students to complete the course of instruction the basis of which they acquired in the Public Schools, and, if they so wish, to prepare themselves for the University examinations. Admission to these schools is by examination only. There were at the close of the year 1896 two High Schools for boys and three for girls. The gross enrolment for that year was 260 boys and 317 girls, making a total of 577 pupils, as against 603 for 1895. The average daily attendance in 1896 was 392 as against 430 for the preceding year. During the last three years there has been a decrease of 29·2 per cent.

in the enrolment at the State High Schools, and of 31 per cent. in the average attendance. There is no doubt that the action taken in 1893 in raising the quarterly fee from two to three guineas contributed to some extent towards this reduction. During 1896, 84 pupils from the High Schools passed the junior, 13 the senior, and 53 the matriculation examinations at the University, 24 of the matriculants qualifying at the junior, and 6 at the senior examinations.

Superior Public Schools, in which the subjects taught embrace, in addition to the ordinary course prescribed for Public Schools, such other subjects as will enable the students to compete at the senior and junior public examinations, are also established. There were 100 of these schools in existence at the end of 1896, with an enrolment of 70,144 pupils. It is important to recollect that these figures do not show the number of children receiving higher education. In the course of the year, 4 pupils at Superior schools passed the senior, and 298 the junior examinations. In addition to these, 57 junior passes were obtained by Public Schools not classed as Superior.

A system of scholarships and bursaries for boys and girls at State schools has been brought into operation. Twenty of each—ten for each sex—are available for education at State High, or Grammar Schools; and six bursaries for boys and four for girls are tenable at the University. The former are awarded half-yearly, and the latter at the March matriculation examinations, to the most proficient pupils, in cases where the parents are unable to defray the expense of the pupil's education. Nine candidates from the High Schools—5 boys and 4 girls—and one pupil—a boy—of Fort-street Model School were successful in obtaining bursaries at the University matriculation in 1896. For other State scholarships and bursaries 100 candidates were successful; 25 boys and 32 girls obtained scholarships for High Schools and Superior Schools; 23 boys and 18 girls obtained bursaries for High and Superior Schools; and 2 boys obtained bursaries for the Sydney Grammar School.

In addition to the various classes of Public Schools already mentioned, there exist several institutions of an educational character which receive an annual subsidy from the Government. The most important of these is the Sydney Grammar School, which is one of the principal schools of the colony. In 1896 the mean quarterly enrolment was 378, and the average attendance 362. This school receives an annual endowment from the State of £1,500. In 1896 the other revenue, derived from school fees and other sources, amounted to £6,663.

THE UNIVERSITY.

In the year 1849 Mr. Wentworth presented a petition to the mixed Legislative Council from certain shareholders of a proprietary school, known as Sydney College, praying for the appointment of a select committee of the House "to consider the best means of carrying on the institution so as to afford the youth of the colony the means of obtaining instruction in the higher branches of literature and science." The committee was appointed, but it received somewhat different instructions, being directed to "consider and report how best to institute a university for the promotion of literature and science, to be endowed at the public expense." The committee, after a few weeks' deliberation, brought up its report, recommending the establishment of a university with a permanent endowment of £5,000 per annum out of the general revenue, and a bill was brought in by Mr. Wentworth in accordance with the report. The Council was shortly afterwards prorogued, and the measure consequently lapsed for that session. In 1850 the bill, which was based mainly on the charter of University College, London, was reintroduced by Mr. Wentworth, and, after some discussion and a few amendments, was passed, receiving the Royal assent on the 1st October of that year.

The endowment was given for "defraying the stipends of teachers in literature, science, and art," and for administration purposes, there being no provision made for teaching any other branch. Power was, however, given to examine and to grant degrees after examination in law and medicine as well as in arts. The University was to be strictly undenominational, and the Act expressly prohibited any religious test for admission to studentship or to any office, or for participation in any of its advantages or privileges. Residence was not contemplated otherwise than in affiliated colleges, but authority was given to license tutors and masters of boarding-houses with whom students of the University might live.

A Senate of sixteen Fellows was constituted by the original Act to govern the University, and it was empowered to elect from among its members its own Provost and Vice-Provost, which titles were later on changed to those of Chancellor and Vice-Chancellor. The Fellows were, in the first instance, nominated by the Crown, but were to be replaced, as vacancies arose, by the Fellows themselves until there should be 100 graduates holding the degree of Master in Arts or of Doctor in Law or Medicine. The first Senate commenced its labours at the close of the year 1850, with Mr. Edward Hamilton, M.A., as Provost, and Sir Charles Nicholson, M.D., as Vice-Provost. It shortly established three chairs in Classics, Mathematics, and Chemistry and Experimental Physics, and sent to England for competent professors to fill them; and on the 11th October, 1852, the University was opened with an imposing ceremony, in presence of the Governor and principal officers, and under the presidency of Sir Charles Nicholson, and twenty-four matriculated students were admitted to membership.

In 1858 a royal charter was granted, which declares that "the degrees of this University in arts, law, and medicine shall be recognized as academical distinctions of merit, and be entitled to rank, precedence, and consideration in the United Kingdom as fully as if the said degrees had been granted in any university of the United Kingdom."

Since the passing of the original Act various amendments have been made, of which the principal are as follow:—By an Act passed in 1857, those who had taken the degree of B.A. or M.A. received certain privileges in respect of admission to the Bar or to the Roll of Solicitors. In 1861 it was directed that, in addition to the ordinary sixteen Fellows, there should be not fewer than three nor more than six *ex-officio* members of the Senate who should be Professors in such branches of learning as the Senate should by any by-law select ; and such Professors and other Public Teachers and examiners and every superior officer declared to be such by the by-laws should be a member of the University, with the same rights and privileges in respect to the election of new Fellows as were enjoyed by persons holding the degrees of M.A., LL.D., and M.D. In 1881 *Ad eundem* degrees, with equal privileges, were authorised to be conferred; and Bachelor of Arts of three years standing were empowered to vote at new elections of Fellows. In 1884 the Senate's powers as regards teaching and degrees were extended by enabling it to give instruction and grant degrees or certificates in all branches of knowledge with the exception of Theology or Divinity, subject to a proviso that no student should be compelled to attend lectures or to pass examinations in Ethics, Metaphysics, or Modern History ; and by the same Act it was directed, in accordance with a previous by-law of the Senate, that the benefits and advantages of the University should extend in all respects to women equally with men.

The number of persons entitled to vote at the elections of new Fellows reached 100 in 1872, whereupon the Senate passed by-laws in respect of such elections, and styled the electoral body "Convocation." This body, including the additions made by the several amending Acts, and the heads of affiliated colleges, who had been declared to be superior officers of the University under the Act of 1861, now numbers upwards of 800.

The public endowment of the University stood at £5,000 per annum until 1880, when £1,000 was added for assistant lectureships; but in 1877 a bequest of the value of £6,000, producing about £300 a year, was made by Mrs. Hovell, widow of the explorer of that name, for instruction in Geology and Physical Geography, and this sum, together with fees, enabled the Senate to divide the Chair of Chemistry and Experimental Physics into two, to the first of which Geology and Physical Geography were attached. In 1882 a further sum of £5,000 was voted to enable the Senate to establish Schools of Medicine and Engineering, and to give some further help to the original Department of Arts. Medical and Engineering Professors and Lecturers, a Professor of Natural History, and some small lectureships in Arts were created; but this sum was soon found inadequate for the intended purposes, and was increased to £7,900, inclusive of the £1,000 granted in 1880. Allowances were also made for apparatus, and a sum of £2,000 per annum granted for evening classes in Arts. In 1893 the Government endowment amounted to £13,000, and the special grants to £5,695. Since that year the State aid has been largely reduced, and in 1896 the endowment was £9,000, while the special grants totalled £2,400. Principally out of the endowment for Evening Classes, a system of

Extension Lectures to non-matriculants was commenced in 1882, first in the metropolis, and afterwards extending to the country districts, and even to the neighbouring colony of Queensland. It is not improbable that as time goes on these lectures will become a very prominent feature in the work of the University.

In 1855 the present site was granted by Governor Sir Charles Fitzroy, by Royal authority, for the erection of suitable buildings, and also to provide land for the prospective erection of four denominational Colleges. It comprised about 126 acres, formerly known as Grose Farm, to which a further grant of 9 acres was afterwards added for the enlargement of the domain or park. Before this grant was made the work of the University had been carried on in the old Sydney College, which, together with its library and even an endowment for a Scholarship bequeathed by Mr. Solomon Levy, was purchased by the Government for the University, and a grant of £50,000 was made by Parliament in 1853 as a building fund. As early as 1854 an Act was passed to aid and partly endow four colleges within the University. A contribution of not less than £10,000, and not more than £20,000, was to be made from the general revenue for building funds, provided that an equal sum was subscribed by private individuals, and £500 a year was to be paid annually by the Government towards the stipend of the Principal of each College. Just before this, steps had been taken to establish the St. Paul's Church of England College; the St. John's Roman Catholic College followed in 1857, and the Presbyterian College of St. Andrew in 1867. In 1896 the number of students in St. Paul's College was 18; in St. John's, 15; and in St. Andrew's, 26. The Wesleyan body, for whom an equal area had been set apart, declined to accept it, and in 1873 some 12 acres of the land originally intended for a site for their college were resumed by the Crown and dedicated to the Prince Alfred Hospital; and provision was made for the establishment by the University of a Medical School in connection with the Hospital, and for joint control by the University Senate and the Hospital Board in respect to all appointments to the medical and surgical staff of the Hospital. But while the regulations under which students have access to the Hospital are framed by the Hospital Board, with the Senate alone rests the appointment of Professors and Lecturers in the Medical School.

The Women's College—a college within the University of Sydney—was opened in March, 1892. It was established for the purpose of affording residence and domestic supervision to women students of the University, with efficient tutorial assistance in their preparation for the University lectures and examinations. In order that full effect might be given to a principle affirmed in the "University Extension Act of 1884," it was necessary that a college for women should be brought into existence, it having been enacted in this measure that "the benefits and advantages of the University and the provisions of the Acts relating thereto shall be deemed to extend in all respects to women equally with men." The college is strictly undenominational—the Act of Incorporation providing that no religious catechism or formulary which is distinctive of any particular denomination shall be taught, and that no attempt shall be made to attach students to any particular denomination. When the college was opened in a house at Glebe Point, leased until the permanent buildings were completed, the students numbered four. The present buildings were opened in the early part of 1894, and at the close of that year there were eight students, while in 1896 there were 12. There is, however, accommodation for twenty-six resident students. The Government granted £5,000 towards the erection of buildings, but affords no endowment to the college, though it pays the salary of the Principal.

Many donations have been made to the University for the use and reward of students. Among the first were gifts of £1,000 each from Mr. Thomas Barker and Sir Edward Deas-Thomson, represented by lands which are now of twice that value. Many others followed, and about £42,000 has been presented up to the present date, exclusive of prizes which have been exhausted by award, and irrespective of increases in value. About £10,000 of this is still in suspense on account of intervening life estates to the widows of testators. Besides the above, a sum of £30,000 was left by the late Mr. Thomas Fisher for a library, and £6,000 was given by the late Sir William Macleay for a Curatorship of the Natural History Museum, presented by him to the University, and for which the Government have erected a suitable building. There have also been bequests of property other than money to the estimated value of £51,000 up to the present time.

Above all, the late Mr. John Henry Challis left his residuary estate to the University, subject to certain annuities. In December, 1890, the trustees handed over to the University the major part of the Australian portion of the estate, consisting of £199,362 in investments and £3,228 cash balance. Under this bequest the Senate have created new Chairs in Law, Modern Literature, History, Logic and Mental Philosophy, Anatomy, Engineering, and Biology, to which they have given the testator's name. The Hovell and Challis bequests constituted, until the end of 1894, the only resources of the University for actual education other than the public endowments. During 1895 Mr. P. N. Russell, of London (formerly of Sydney), devoted £50,000 to the purpose of endowing a School of Engineering.

The teaching-staff, now that all the Challis Chairs are filled, consists of fourteen Professors, twenty-seven Lecturers, and seven Demonstrators. The subjects over which Professors preside are Greek, Latin, Mathematics, Chemistry, Physics, Geology and Physical Geography, Physiology, Anatomy, Engineering, Modern Literature, Logic and Mental Philosophy, Biology, Law, and History. The Lecturers deal with Geology and Physical Geography, Metallurgy, Latin, Modern Literature, Mathematics, Architecture, Surveying, Mining, Mechanical Engineering and Drawing, Principles and Practice of Medicine, Principles and Practice of Surgery, Midwifery, Diseases of Women, Materia Medica and Therapeutics, Pathology, Medical Jurisprudence and Public Health, Clinical Medicine, Clinical Surgery, Psychological Medicine, Ophthalmic Medicine and Surgery, Law of Real Property and Equity, Law of Procedure (including Evidence), Law of Wrongs, Civil and Criminal and Law of Obligations. There are also Tutors in Medicine and Surgery, and a Tutor to the female students. The Demonstrators are appointed in Chemistry, Physiology, Anatomy, Biology, Geology and Physical Geography, and Physics.

From the foundation of the University to the end of 1896, 1,471 degrees of various kinds have been conferred, the highest number bestowed in any one year being 123 in 1894. The degrees conferred include 256 M.A., 851 B.A., 23 LL.D., 57 LL.B., 37 M.D., 108 M.B., 75 Masters of Surgery, 24 B. Sc., 3 Masters of Engineering, and 37 Bachelors of Engineering. During 1896 the degrees conferred (including *ad eundem*) were M.A. 6, B.A. 58, LL.B. 7, M.D. 2, M.B. 17, Ch.M. 11, B.Sc. 1, M.E. 1, B.E. 5. The number of matriculated students increased from 34 in 1876 to 438 in 1896.

Examinations, corresponding to the middle-class examinations of the English Universities, are held every year. These examinations have proved highly popular, attracting no less than 2,305 candidates in 1892, of whom 173 were seniors, and 2,132 juniors. Since that year, however, the number of candidates has greatly fallen off; and now that the Public Service Board have instituted competitive examinations for appointments to the public service, it is expected that the candidates presenting themselves for examination will be still further reduced.

Year.	Students attending Lectures.	Matriculated students.	Attending extension Lectures.	Public Examinations.			
				Number of Seniors.		Number of Juniors.	
				Examined.	Passed.	Examined.	Passed.
1876	58	34	...	53	40	356	212
1877	61	23	...	63	38	303	135
1878	62	24	...	58	41	364	243
1879	83	58	...	76	64	333	247
1880	76	64	...	66	54	381	209
1881	81	80	...	48	36	392	231
1882	97	101	...	57	43	398	240
1883	128	85	...	57	36	473	299
1884	203	142	...	65	48	563	379
1885	206	115	...	84	73	645	440
1886	203	122	137	107	83	858	548
1887	215	132	329	125	87	834	562
1888	250	130	403	141	110	834	538
1889	275	210	327	115	90	1,085	706
1890	409	301	447	129	101	1,172	798
1891	532	478	298	143	110	1,729	1,191
1892	598	540	528	173	134	2,132	1,467
1893	586	539	514	176	127	1,853	921
1894	592	522	934	137	103	1,494	824
1895	506	487	727	142	112	1,398	847
1896	454	438	396	142	108	1,481	965

Examinations for the admission of articled clerks were instituted in 1877, in compliance with a rule of the Supreme Court, and in 1896 there were 21 successful candidates.

Below is given a statement showing the amount derived by the University from each of the principal sources of revenue from 1876, with the total expenditure during each year :—

Year.	Receipts.					Expenditure.
	Government aid.		Lecture fees.	Other sources.	Total.	
	Endowment.	Grants for apparatus or other special purposes.				
	£	£	£	£	£	£
1876	5,000	....	403	100	5,503	5,877
1877	5,000	....	334	100	5,434	5,434
1878	5,000	1,168	324	100	6,592	7,748
1879	5,000	114	476	100	5,690	5,746
1880	5,000	1,500	457	100	7,057	6,795
1881	5,000	1,000	706	100	6,806	6,227
1882	10,000	2,964	1,080	100	14,144	10,614
1883	12,000	2,343	1,266	120	15,729	15,381
1884	12,000	3,500	2,207	170	17,877	16,198
1885	12,000	4,500	2,479	385	19,364	20,094
1886	12,000	5,500	2,600	323	20,423	20,765
1887	12,000	4,918	2,819	308	20,045	20,811
1888	12,000	7,099	3,022	385	22,506	21,867
1889	12,000	6,800	5,667	807	25,274	28,030
1890	13,900	4,734	5,385	293	24,312	26,075
1891	13,900	4,400	7,262	11,694	37,256	36,649
1892	13,900	4,200	7,647	11,843	37,590	40,083
1893	13,000	5,695	7,912	11,921	38,528	39,769
1894	11,000	2,200	7,700	12,590	33,490	33,539
1895	9,500	2,000	8,445	11,462	31,407	31,651
1896	9,000	2,400	8,171	11,923	31,494	31,557

An extensive addition to the University's magnificent buildings has been made for the use of the School of Medicine. It provides the most complete accommodation for students desiring to follow the profession of medicine and surgery; and the Prince Alfred Hospital, erected, as before stated, on the University grant, affords them the necessary means of study. During the year 1896 there were 136 undergraduates, of whom 8 were ladies, in the Medical School—a very fair number considering that this school was not established until 1883, and then commenced with only four students. A laboratory for the Department of Physics has also been erected, and is replete with every means of illustrating the teaching of physical science. In March, 1890, a Department of Chemistry and its adjuncts were opened. The accommodation provided includes lecture halls and four laboratories, besides other facilities. One of the laboratories is used in connection with the School of Mines, which was opened early in 1895 for the purpose of imparting instruction in geology (including physical geography and palæontology), mineralogy, and practical mining work. The buildings for the School of Mines cost upwards of £4,000, and more than £1,500 was expended on fittings. In 1896 there were 11 students in attendance at this school.

DENOMINATIONAL HIGH SCHOOLS AND COLLEGES.

All the principal religious bodies provide high schools and colleges where students may be educated according to the precepts of their various beliefs, and prepared to compete for University honours or the various professions which they may adopt. Evidence of the progress of superior denominational education in the colony may be seen in the magnificent college buildings which surround the city, among which may be cited Newington College, the colleges of the Marist Brothers and the Jesuit Fathers at Hunter's Hill and Riverview, the old-established King's School at Parramatta, the North Sydney Church of England Grammar School, the Scots' College, the Presbyterian Ladies' College at Croydon, and a host of other first-class establishments erected under the patronage of the various religious bodies.

TECHNICAL EDUCATION.

Public attention was so strongly directed in the years which followed the great world exhibition of 1851 to the necessity of providing the artisan classes, and the people generally, with the means of obtaining a scientific knowledge of the various handicrafts, that technical schools sprang up in various parts of England, some being under the direct patronage of the State, while others were founded by the wealthy trade societies or guilds of the great English cities. The excellent results following the establishment of these schools could not fail to attract attention in the colonies, where a sound and practical knowledge of the manual arts is of paramount necessity. The foundation of the New South Wales Technical School was due in great measure to the efforts of a few gentlemen connected with the Sydney Mechanics' School of Arts, and as far back as 1873 it was decided to establish a Technical College affiliated to that institution, with the object of improving the scientific knowledge of Australian artisans. In the year 1878 a sum of £2,000 was granted by Parliament towards the organization of a Technical College, and for five years the work of the institution was carried on in connection with the School of Arts. In 1883, however, a board was appointed by the Government to take over its management, and the Technical College became thenceforth a State institution. Towards the end of 1889 the Board was dissolved, and the Technical College came under the direct control of the Minister of Public Instruction. The institution is now well established, and its work is already being felt and appreciated, whilst the future gives every promise of still greater usefulness. The College is housed in a fine building specially erected by the Government at Ultimo, Sydney, and is provided with workshops and all necessary tools and apparatus.

The course of instruction, under the present constitution of the College, comprises classes in agriculture, art, architecture, chemistry, geology and mineralogy, mechanical engineering, physics, sanitary engineering, electrical engineering, lithography and photo-lithography, mine surveying, metalliferous mining, and wool sorting and other training in connection with sheep and wool; and these classes are subdivided as may be warranted by circumstances.

The College is open to both male and female students, and in 1896 there were 200 classes in operation, of which 83 were in Sydney and suburbs, 97 in various country towns, and 20 in connection with public schools. The teaching staff consisted of 13 lecturers in charge of departments, 5 resident masters in charge of branch schools, 36 teachers, 17 assistant teachers, and 13 teachers remunerated by fees only. The enrolment of students amounted to 7,119 in all, 3,880 of whom were in Sydney and suburbs, and 2,285 in the country, while 954 represented the enrolment of scholars from public schools. The number of individual students was 5,396, being a decrease of 62 as compared with the number for 1895. The average weekly attendance was 3,718. At the annual examinations 2,576 students presented themselves, of whom 1,822 passed—a proportion of 67·4 per cent. New Technical College buildings were opened at Newcastle in February, 1896; and a Technical College is at present in course of construction at Bathurst.

In 1896 the State expenditure on technical education amounted to £24,815. Of this amount, £3,839 was paid on account of technological museums, and £20,976 was spent on the Technical College and branch schools. Salaries (administrative) absorbed £3,807, and £12,248 was paid to lecturers and teachers, and £2,634 to the mechanical staff, caretakers, etc. Apparatus and fittings cost £5,680, while £446 went for rent. The sum of £3,611 was received as fees from pupils, in addition to a Parliamentary grant of £21,204. The cost to the State per student, which in 1889 reached £6 15s. 4d., had in 1896 been reduced to £3 4s. 4d.

REFORMATORIES AND INDUSTRIAL SCHOOLS.

In addition to the purely educational establishments, the State maintains several reformatories and industrial schools. For girls there are the Industrial School at Parramatta and the Shaftesbury Reformatory at South Head; and for boys, the nautical schoolship Sobraon and the Carpenterian Reformatory. All these institutions are under the contro of the Minister for Public Instruction. At the Parramatta Industria School the total enrolment of girls during the year 1896 was 175, of whom 41 were under and 134 over 14 years of age. At the end of the year the girls numbered 124. The cost of maintaining the school in 1896 was £2,585. At the Shaftesbury Reformatory there were 15 girls at the close of 1896.

The want of a reformatory for criminal youths has been much felt for many years, and in the absence of such an institution magistrates have often sent convicted boys to the school-ship. In the early part of 1894 the Government acquired the Brush Farm Estate, and portion of the land was speedily utilised, a section of the area in the municipality of Dundas being set apart as a home for crippled and delicate lads who have become inmates of charitable institutions, superseding a similar institution at Rydalmere, but these boys have since been transferred to Newington. Upon another section of the estate, coming within the boundaries of Eastwood, the Carpenterian Reformatory was opened in August, 1895. To this institution are sent boys who have been convicted in the lower or higher Courts, and whom it is desired to keep apart from such persons as they would have to associate with if sent to gaol. In addition to being subjected to proper discipline, the boys are taught farming, carpentering, bootmaking, and blacksmiths' work. At the end of 1896 there were 91 lads housed in the Reformatory, of whom 44 were under 14 years of age. In the early part of 1897, the Minister for Public Instruction, in consequence of a lack of accommodation at this institution, liberated 39 boys.

On the Sobraon 554 boys were dealt with during the year 1896. The admissions during the year numbered 174, and the discharges 223. The daily average number on board during the year was 380; and on the 31st December, 1896, there were 331 boys remaining on board. Up to this date there had been 3,505 boys admitted on board, of whom 3,174 had left. Favourable reports were received in the course of the year respecting more than 93 per cent. of the apprentices from the nautical school-ship who still remained under its supervision, and were liable to be brought back in case of misconduct. The management of the institution is excellent. Its net cost to the State during 1896 was £8,583. The results obtained in the above-mentioned establishments have been of a very successful character, many children having been reclaimed from a depraved life, or rescued from unhappy surroundings, and turned out, after a course of some years' training, useful members of society.

SCIENTIFIC SOCIETIES, ETC.

In a young country such as New South Wales, where most of the people are engaged in the development of its material resources, the existence of a leisured class, or one devoted to the pursuit of science, is hardly to be looked for. Nevertheless it is satisfactory to find that the higher aims of science are far from being neglected. As far back as the year 1821, a scientific society under the title of the Philosophical Society of Australasia was founded in Sydney, and after experiencing many vicissitudes of fortune was transformed in 1866 into, and afterwards incorporated under the title of, the Royal Society of New South Wales. The society is now in a flourishing condition, counting amongst its members some of the most eminent men in the colony. Its objects are the advancement of science in Australia, and the encouragement of original research in all subjects of scientific, artistic, and philosophical interest, which may further the development of the resources of Australia, draw attention to its productions, or illustrate its natural history. The proceedings include papers of the greatest interest on important scientific questions, especially those whose solution is of Australian interest.

The study of the botany and natural history of Australia has attracted many enthusiastic students, and the Linnæan Society of New South Wales was established for the special purpose of furthering the advancement of these particular sciences. The society is housed in a commodious building at Elizabeth Bay, one of the most beautiful spots near the city, and possesses a library and museum. It was liberally endowed by Sir William Macleay, who, not content with being one of its most munificent supporters was also an indefatigable worker in the field of science. The society's proceedings are published at regular intervals, and contain many valuable papers, together with excellent illustrations of objects of natural history.

Among the other scientific societies are the New South Wales Zoological Society, inaugurated in 1879; a branch of the British Medical Association, founded in 1881; a branch of the British Astronomical Association, whose first meeting was held in 1895; and a branch of the Anthropological Society of Australasia. The Australasian Association for the Advancement of Science, and the Royal Geographical Society of Australia, also have transactions in New South Wales as well as in the other colonies.

The Sydney Observatory is numbered among the institutions of a scientific and educational character which the colony liberally supports. Situated in a commanding position, it is admirably fitted for the purpose it is intended to serve. The present building was erected in

1856 at the instance of Sir William Denison, then Governor of the colony, who took a great interest in scientific pursuits. The Government Astronomer has under him a complete staff of assistants, and during the year 1895–6 a sum of £4,021 was expended in connection with the institution. Meteorological observations have received special attention, as befits such an important subject in a country whose prosperity depends so much upon climate. When the present Astronomer took office in 1870, there were in the colony only six stations, and observations on the climate, rainfall, and other meteorological phenomena were necessarily very limited in character. At the end of 1896 the number of stations had been increased to 1,507. Rain gauges have also been established at most of the sheep and cattle stations of the interior, with a result which is highly satisfactory. The light thrown on the true characteristics of the climate, especially of that part of the colony remote from the sea coast, has tended to modify the notion long current as to its unfitness for agricultural as well as pastoral settlement.

PUBLIC LIBRARIES.

The Public Library of New South Wales was established, under the designation of the Free Public Library, on the 1st October, 1869, when the building and books of the Australian Subscription Library were purchased by the Government. The books thus acquired formed the nucleus of the present library. The number of volumes originally purchased was about 16,000, and on the 31st December, 1896, they had been increased to 115,908, including those in the lending branch or lent to country libraries. The lending branch was established in 1877 to meet a growing public want, and under the present system any person may, on the recommendation of a clergyman, magistrate, or other responsible person, obtain under certain simple regulations the loan of any of the works on the shelves, free of charge. The scope of this institution was further extended by the introduction of a system by which country libraries and Mechanics' Institutes may obtain on loan works of a select kind, which in many instances would be too expensive for them to purchase on account of the slender funds at their disposal. Under this system, boxes are made up containing from 60 to 100 books, and forwarded to the country libraries on application, to be returned or exchanged within four months. This system was initiated in August, 1883, and has been carried on successfully ever since. In the course of the year 1896, 14,208 volumes were forwarded to 107 institutions, some of which were at considerable distances from the metropolis. All the charges in connection with the despatch and return of the books are defrayed by the State, and the system in vogue in New South Wales is the most liberal of its kind in existence.

The reference department of the Public Library of New South Wales contains 84,484 volumes, and the lending branch 25,293, while there are also 6,131 volumes for country libraries to be lent under the above-mentioned system, the total number of books and pamphlets, the property of this institution, being 115,908 classified as under:—

Synopsis of Classification.	Reference Department.	Lending Branch.	For Country Libraries.	Total.
	No.	No.	No.	No.
Natural Philosophy, Science, and the Arts	10,869	4,168	1,369	16,406
History, Chronology, Antiquities, and Mythology	7,161	3,560	1,174	11,895
Biography and Correspondence	5,174	4,086	1,441	10,701
Geography, Topography, Voyages and Travels, etc.	6,965	3,628	1,136	11,729
Periodical and Serial Literature	24,315	....	47	24,362
Jurisprudence, Political Economy, Social Science, etc.	5,538	1,172	199	6,909
Theology, Moral and Mental Philosophy, and Education	5,183	1,502	164	6,849
Poetry and the Drama	2,888	940	127	3,955
General Literature, Philology, and Collected Works *	6,300	6,237	472	13,009
Works of Reference	4,876	....	2	4,878
Duplicates	5,215	....	....	5,215
Total	84,484	25,293	6,131	115,908

* Including 2,983 volumes of Fiction.

The popularity of the Public Library of New South Wales is clearly proved by the number of persons availing themselves of the privileges which it affords. The increase has been very regular, as will be seen in the following statement showing the number of visits to the library, rising from 59,786 in 1870 to 255,058 in 1896, 80,928 of which were visits to the lending branch:—

1870	59,786	1883	155,431
1871	60,165	1884 (eleven months)	161,877
1872	48,817	1885	165,715
1873	73,659	1886	168,685
1874 (eleven months)	57,962	1887	139,203*
1875	66,906	1888	149,425
1876	72,724	1889	132,983
1877 (Lending Branch first opened)	124,688	1890	155,822
1878	117,047	1891	173,205
1879 (Exhibition open)	152,036	1892	197,255
1880	134,462	1893	216,089
1881	136,272	1894	209,099
1882 (eleven months)	133,731	1895	237,170
		1896	255,058

* Reference Library closed for three months on account of removal.

Besides the 255,058 visits recorded for 1896, no less than 161,124 were paid to the newspaper room. Although the lending branch contains but 25,293 volumes, the total number of times when books were issued during the year was not less than 94,637, and the number of persons availing themselves of the privilege of borrowing was 6,061, so that on an average each book was taken nearly four times, and each person to whom a permit was granted used nearly sixteen volumes during the year. As usual, works of fiction were extensively read, each of the 2,983 novels in the branch having been issued nine times during the year. The number of volumes of each class taken out was as follows :—

Synopsis of Classification.	No. of volumes used.
Natural Philosophy, Science, and the Arts	10,773
History, Chronology, Antiquities, and Mythology	9,834
Biography and Correspondence	8,486
Geography, Topography, Voyages and Travels, etc.	14,607
Jurisprudence, Political Economy, Social Science, etc.	1,965
Theology, Moral and Mental Philosophy, and Education	3,415
Poetry and the Drama	2,785
General Literature, Philology, and Collected Works	16,007
Prose Fiction	26,765
Total	94,637

During 1886 and 1887 considerable extensions were made to the premises of the Public Library of New South Wales, which had become much too small for the accommodation of the public, and the proper housing of the books. It was at length decided to pull down the old building in Macquarie-street, and a contract was made about the middle of 1887 for rebuilding a large portion of the Library at a cost of £10,455. The new building was opened to the public in April, 1890; and the Public Library of New South Wales is now one of the most convenient in Australia.

The institution forms a separate department, under the control of the Minister of Public Instruction. Its cost to the State during 1896 was as follows :—

	£
Books, Periodicals, and Binding	1,904
Salaries	4,294
Miscellaneous—Cleaning, Freight, Repairs, &c.	772
Total	6,970

Besides the Public Library, which is situated in Sydney, there are smaller libraries established in the principal population centres throughout the colony. These libraries may be broadly classed under two heads—Schools of Arts, receiving an annual subvention in proportion to the amount of monetary support accorded by the public; and Free Libraries, established in connection with municipalities. Those of the former class are far the more numerous. Under the provisions of the Municipalities Act of 1867 any municipality may establish and maintain a Free Library, and where such is done the Council of the Municipality is entitled, for the purchase of books, to the sum of £200 if the library is available for the use of a population of 1,000, or to £100 where the population to whom the library would be accessible reaches 300 persons. The number of volumes in the various public libraries, excluding the Public Library of New South Wales, is estimated at about 265,000.

NATIONAL ART GALLERY.

The National Art Gallery was first instituted in 1871 in connection with the New South Wales Academy of Art. It was reopened as the National Art Gallery in 1880, and is now situated in the Outer Domain, in a convenient and well-lighted building, which has received recent additions, but is yet incomplete. The Gallery contains an excellent collection of paintings and statuary, comprising some of the most famous works of the best modern artists of the old world, and includes several very valuable gifts from private persons. Like the other national institutions of New South Wales, the Gallery is open on Sundays as well as week-days, and on Sundays and public holidays the attendance is especially numerous. During 1896 the Gallery was visited by 215,602 persons, the average Sunday attendance being 1,581, and on week-days, 427. In 1894 a system of loan exchanges between the Art Galleries of Sydney, Melbourne, and Adelaide was introduced. By this arrangement pictures are sent from Sydney to Melbourne and Adelaide, and others are received from the Art Galleries in those cities in exchange. That the interests of art have benefited under this system is unquestionable. Another excellent scheme was initiated in July, 1895, by which collections of pictures belonging to the Art Gallery and the Art Society are made up and sent to the principal country towns for temporary exhibition. Up to the end of 1896 the total expenditure on the National Art Gallery was £105,822, of which the sum of £83,408 had been expended on works of art. The disbursements during 1896 were:—

	£
For works of art	964
For maintenance, including freight, frames, repairs, and insurance	1,061
For salaries	1,112
Total cost to the State	3,137

MUSEUMS.

The Australian Museum, the oldest institution of the kind in Australia, occupies a conspicuous site in the centre of Sydney, facing one of the principal parks. The collections contain carefully-selected specimens of the principal objects of natural history found in such establishments.

and also a most complete collection of zoological specimens of distinctly Australian character. The popularity of the institution is evinced by the increasing number of persons by whom it is visited. The Museum is open to the public every day except Monday, and on Sundays the visitors are very numerous. The number of visitors during 1896 was 117,845, the daily average being 663 on Sundays, and 316 on other days. The expenses in connection with the institution amounted to £5,895, of which £432 was expended on account of purchase, collection, and carriage of specimens, and purchase of books.

The Technological Museum, formerly situated in the Outer Domain, is now housed in a fine building at Ultimo. This museum was instituted at the close of 1879 on the initiative of the Trustees of the Australian Museum; but the whole collection of some 9,000 specimens was totally lost in 1882 by the Garden Palace fire. Strenuous efforts were at once made to replace the lost collection, and in December, 1883, the museum was again opened to the public, and now contains interesting and valuable series of specimens illustrating the various stages of many manufactures, and an excellent collection of natural products. The popularity of the institution may be gathered from the fact that 99,952 persons visited it during 1896.

There are branch Technological Museums at Goulburn, Bathurst, West Maitland, and Newcastle, which were visited by 126,058 persons during 1896, a decrease of 4,625 from the attendance of the previous year. The sum of £3,839 was expended on the various institutions of this nature (including the one in Sydney) during 1896.

Connected with the Department of Mines and Agriculture is a Mining and Geological Museum, housed in an iron building in the Outer Domain. The museum is open to the public on week-days, admission being free.

At Albury a Free and Industrial Museum has been established. It is of an educational character, and is supported by voluntary contributions. The State grants the use of a building formerly used for public school purposes.

RELIGION.

In the eyes of the State all religions are equal in New South Wales, but during the early days of the colony such was not the case. New South Wales was originally a Crown Colony, and the Church establishment as it existed in England was naturally transplanted to these shores. Ecclesiastical monopoly nevertheless only continued for a short time, and the countenance and support of the State were eventually extended, during the governorship of Sir Richard Bourke, to the principal religious bodies which then existed—the Anglicans, Roman Catholics, Presbyterians, and Wesleyan Methodists. To the clergy of each of these denominations the Government granted what has usually been denominated State aid, which continued long after the old political system had passed away and had been replaced by Responsible Government. In 1862, however, an Act was passed limiting future payments to the clergy then actually in receipt of State aid. In the year following the passing of this Act the claims on the Government amounted to £32,372, thus distributed :—

Church of England	£17,967	Presbyterian	£2,873
Roman Catholic Church	8,748	Wesleyan Methodist	2,784

Year by year the sum payable has been lessening, owing chiefly to the deaths of clergymen in receipt of State aid, so that during the year ended June, 1897, the payment by the State was £6,727, distributed as follows :—

Church of England	£3,537	Presbyterian	£552
Roman Catholic Church	1,888	Wesleyan Methodist	750

The payments to the clergy of different denominations are given for various periods since 1863. It will be observed that in some years the amounts paid were less than in succeeding years. This anomaly is due to the temporary stoppage of the stipends of clergymen who were absent from the colony. The total payments made since 1863 amount to £545,246, of which £294,748 was paid to clergymen of the Church of England, £154,427 to Roman Catholics, £53,882 to Presbyterians, and £42,189 to Wesleyan Methodists :—

Year.	Church of England.	Roman Catholic Church.	Presbyterian.	Wesleyan Methodist.	Total—All denominations.
	£	£	£	£	£
1863	17,967	8,748	2,873	2,784	32,372
1865	14,111	7,430	3,090	1,572	26,203
1870	12,386	6,583	2,180	1,573	22,722
1875	10,725	5,608	1,626	1,372	19,331
1880	7,739	3,892	1,702	1,716	15,049
1885	5,791	3,000	1,039	1,136	10,966
1890	5,556	2,600	702	900	9,758
1891	5,347	2,570	702	875	9,494
1892	4,926	2,312	702	750	8,690
1893	4,260	2,300	702	750	8,012
1894	3,521	2,058	644	687	6,910
*1895	1,920	1,023	351	438	3,732
1895-6	3,824	1,976	569	687	7,056
1896-7	3,537	1,888	552	750	6,727

* Six months.

The number of persons entitled to State aid during 1897 was 35—16 clergymen of the Church of England, 10 Roman Catholics, 4 Presbyterians, and 5 Wesleyan Methodists.

At the Census of 1891 the number of adherents to each of the denominations, with the clergy registered for the celebration of marriages, was as given below. The table also shows the average number of adherents to each denomination compared with the number of clergymen in active service:—

Denomination.	Clergy.	Adherents.	Proportion of adherents to clergy.
Church of England	333	502,980	1,510
Other Episcopalians	1	95	95
Roman Catholic	295	286,895	973
Greek Church	......	253	......
Catholic (not defined)	......	16	......
Presbyterian Church of New South Wales	146	106,464	729
Presbyterian Church of Eastern Australia	6	2,154	359
Other Presbyterians	4	772	193
Wesleyan Methodists	133	87,516	658
Primitive Methodists	29	20,354	702
Other Methodists	5	2,242	448
Baptist Union of N. S. Wales	27	12,344	457
Other Baptists	5	768	154
Congregational	65	24,089	371
Lutheran	5	7,950	1,590
Bible Christians	9	2,336	260
Church of Christ	5	2,042	408
Christian Brethren	......	1,036	......
Unitarian	1	1,329	1,329
Salvation Army	10	10,315	1,032
Other Christian sects	8	2,773	476
Protestants (not defined)	......	3,787	......
Hebrews	3	5,484	1,828
Buddhists	......	10,110	......
Mahometan	......	528	......
Agnostic, Infidel, etc.	......	727	......
Freethinkers	......	5,469	......
Other sects	......	1,035	......
No denomination	......	4,927	......
No religion	......	3,136	......
Object to State religion	......	11,237	......
Not stated, or ill-defined	......	2,791	......
Total	1,090	1,123,954	......

From the figures just given the aboriginal population, to the number of 8,020, have been excluded, and in calculating the average number of adherents to each clergyman the Christian Brethren have been included with "other Christian sects"—a heading which also comprises 23 Nonconformists, 153 Christian Israelites, 16 Moravians, 370 New Church, 345 Catholic Apostolic Church, 132 Calvinists, 247 Quakers, 548 Christadelphians, and 307 Latter-day Saints, besides 302 persons who call themselves Unsectarian Christians. Taking the whole population (less aborigines), there were 1,031 persons on an average to each clergyman.

Formerly, religious statistics were collected every year. It has now been decided to have only one collection half way between the Census periods, so that new figures will be available every five years. The latest figures at the present time are those for 1894. In that year the number of persons attending Divine Service on Sundays averaged 390,807. This number represents the attendance of adults only; if school children were included the number would be about 500,000. When the sparseness of the population in some parts of the country is considered, the church attendance will appear very large, and though apparently less than found in the colony of Victoria, it is proportionately much greater than in England. The number of adult attendants on Divine Service in 1890 was returned at 300,890; for 1885 it was 263,379; and for 1881, 213,044; so that there has been a gradual increase, fairly keeping pace with the population. The relative numbers of each denomination in attendance have remained very much the same for several years past. In 1881 the Church of England had the largest attendance, but from 1884 the Church of Rome has taken the lead.

The figures showing the attendance at Divine Service on Sundays for each of the principal denominations are given hereunder. Sunday-school children are not included. The authorities of the Salvation Army return the number of attendants at their services as 52,250, whereas the Census returns showed 10,312 only as the number of soldiers enrolled. It is very probable, therefore, that a great proportion of those who attend the Army services are nominally members of other denominations:—

Denomination.	Number of distinct persons attending Divine Service.	Proportion of Denominations attending Divine Service.
		Per cent.
Church of England	93,939	17·0
Roman Catholic	97,115	30·7
Presbyterian	42,938	35·7
Wesleyan Methodist	67,675	70·2
Other Methodists	10,305	41·4
Congregationalist	12,278	46·4
Baptist	7,880	54·4
Salvation Army	*52,250	100·0
Other Denominations	6,427	8·7
Total	390,807	31·6

* Figures of previous year.

The Church of England is the largest religious denomination in the colony, whether judged by the number of professed adherents, the number of clergy, or the number of buildings used for Divine Service. During the year 1894 there were 639 churches belonging to this denomination, and 949 buildings and dwellings used for public worship accommodating altogether 129,625 persons; and the attendance of distinct persons, counting only adults, was 93,939. The number of clergy registered under Acts 19 Vic. Nos. 30 and 34, for the celebration of marriages, was 331. Besides the clergy regularly ordained, there were 233 laymen licensed to perform service. The Church provides a parsonage in 194 parishes, besides 23 residences which are not church property. The approximate number of services performed during the year, including week-day services, was 62,076. The number of communicants affords a special test of the progress of Church membership. The record for 1892 was 23,046; for 1893, 25,104; and for 1894, 26,517. The baptisms performed in 1894 numbered 13,902, and the rite of confirmation was administered to 1,538 males and 2,494 females. The Church of England in the colony is governed by a Metropolitan, who is also Primate of Australia and Tasmania, and five other Bishops, whose sees are Bathurst, Goulburn, Newcastle, Grafton and Armidale, and Riverina. By an Act passed in 1881, provision was made for the creation of corporate bodies of trustees, in which property belonging to the Church of England may be vested, and trusts for various dioceses have been formed under the Act. They are entitled to hold, on behalf of the Church, all real and personal property which may be assigned to them by grant, will, or otherwise.

The Roman Catholic Church is presided over by the Cardinal Archbishop of Sydney, assisted by a Coadjutor Bishop, under whom are the suffragan bishops of Bathurst, Goulburn, Grafton, Maitland, Armidale, and Wilcannia, the whole colony forming an ecclesiastical province. No fewer than twenty-six religious orders are represented in the colony. In 1894 there were 309 priests licensed to celebrate marriages. The number of Roman Catholic Churches properly so called was 466; besides these, there were 790 buildings or dwellings used for Divine Service. The accommodation afforded by the churches amounted to about 69,331 sittings, with standing accommodation for 39,280 persons in addition, and the attendance of distinct persons, counting only adults, was 97,115. A return issued by the Church authorities gives the number of religious brothers as 179, and the number of nuns as 1,510.

The various branches of the Presbyterian Church in the colony had, during 1894, 263 churches used for public worship; there were also 515 public buildings or dwellings occasionally used for the same purpose. The number of ministers was 152, of whom 144 were connected with the Presbyterian Church of New South Wales, 4 with the Presbyterian Church, Synod of Eastern Australia; 2 with the Presbyterian Church of Eastern Australia, reconstituted Synod; 1 with the Presbyterian Church of Eastern Australia unattached, and 1 with the Presbyterian Church, unconnected. The accommodation provided in churches was 67,632 sittings, and the attendance numbered about 42,938, not including Sunday-school children. The Presbyterian Church of New South Wales had 10,101 communicants, and administered 2,006 baptisms during the year. For the purposes of this Church, the colony is divided into fourteen Presbyteries, each comprising a number of separate charges, to each of which a Minister is appointed. The management of the affairs of the Church is controlled by a General Assembly, which sits annually, and consists of Ministers and Elders from the Charges within the different Presbyteries. It is presided over by a Moderator, who is elected by the Presbyteries, who also nominate representatives to the Federal Assembly. The first Assembly of the Presbyterian Church of New South Wales was held in 1865. By Act of Parliament the Assembly has power to grant permission to trustees to mortgage Church property, and trustees are authorised to hold property for the Church generally.

The Wesleyan Methodists in Australia received from the English Conference, in 1884, an independent constitution. There are eight districts into which the Wesleyan Methodist communion is divided. Throughout the colony there are 413 churches and 471 other preaching places, with sittings to the number of 93,917 in all. The denomination has in its service 149 regular clergy and 517 local preachers. The number of church members is said to be 10,162, of whom 1,146 are communicants; and the attendance of adherents at Divine Service is not less than 67,675, not including children. The Wesleyan Methodist Church Property Act of 1889 provides for the appointment of trustees to hold all lands acquired by gift, devise, purchase, or otherwise, under a deed, a model of which forms a schedule to the Act; and the measure gives power to a majority of the trustees to mortgage, exchange, or lease Church properties. It also provides for the appointment of a Custodian and an Acting Custodian of Deeds, who are to be notified by the President of the Conference, and their names published in the *Government Gazette*, and registered in the Land Titles Office. The Tonga District and South Sea Missions are attached to the New South Wales Conference.

The Primitive Methodists, United Methodists, and other Methodists have 98 churches and 25 other buildings, and 41 clergy; the accommodation provided will seat 19,070 persons; and the attendance at Divine Service is about 10,300.

The Congregational Church has 61 churches, as well as 47 buildings or dwellings used for worship; and the sittings provided will accommodate 21,465 persons. The clergy licensed to celebrate marriages number 60, and the attendance at Divine Service on Sundays averages about 12,280.

The various Baptist Churches in the colony have 29 licensed ministers, with 32 churches and 59 school-houses or other buildings devoted to public worship; the Sunday attendance averages 7,880 persons, but there is sitting accommodation for 12,719. The Baptist Union of New South Wales is not incorporated, and so cannot legally hold property in trust for the denomination. Annual sessions, with half-yearly assemblies, are held, presided over by a Chairman, who is elected annually. For several sessions a draft constitution has been under the consideration of the Union, which, amongst other matters, provides that all properties which now belong or may hereafter accrue to the Union shall be held under a Model Trust Deed, by Trustees to be duly appointed.

The Salvation Army was established in Australia in 1882. Melbourne was made the chief centre for Australasia under the command of a Commissioner, and Sydney was constituted the headquarters for New South Wales, with a separate chief officer, who is termed Colonel, in command, all officers and members bearing military titles and designations. The various ranks are Commissioner, Colonel, Brigadier, Major, Staff-Captain, Captain, Adjutant, Ensign, Lieutenant, and Cadet. The rank and file consist of sergeant-majors, sergeants, and soldiers, There are also treasurers and secretaries to corps. Persons who are in sympathy with the Salvation Army, but who have not subscribed to the "Articles of War"—which combine a confession of faith and a pledge against the use of intoxicating liquors and baneful drugs—form an Auxiliary League and contribute to the funds of the Army. Persons desirous of membership are publicly received, after one month's probation and subscription to the "Articles of War," and are then attached to the corps stationed nearest their place of residence. The Army has only 10 officers licensed to celebrate marriages, but has 209 buildings used for service, accommodating 40,186 persons. The number of persons attending Sunday service is stated by the authorities to be 52,250.

Besides those above enumerated, there are other distinct religious bodies, for the most part Protestant denominations, with clergy licensed by the State to celebrate marriages. The number of clergy ministering to these in 1894 was 37; the churches, school-houses, and public buildings used for Divine Service numbered 79; and the attendance was about 6,427 persons.

The number of registered ministers belonging to all faiths was 1,241, and the churches numbered 2,049, in addition to which there were 3,067 dwellings or other buildings used for public worship. The accommodation provided would seat about 503,965 persons. The average attendance was about 390,800.

Nearly all the religious bodies maintain Sunday-schools. The attendance of children at the Sunday-schools of the leading denominations, with the number of schools and teachers during 1894, was :—

Denomination.	No. of schools.	Number of teachers.			Average attendance of scholars.		
		Male.	Female.	Total.	Male.	Female.	Total.
Church of England	596	1,196	2,837	4,033	15,670	20,842	36,512
Roman Catholic	505	322	1,188	1,510	10,094	13,918	24,012
Presbyterian	248	576	1,058	1,634	5,261	6,852	12,113
Wesleyan Methodist	356	1,496	1,744	3,240	10,924	13,265	24,189
Other Methodists	100	528	512	1,040	3,391	4,146	7,537
Congregational	70	369	451	820	2,662	3,418	6,080
Baptist	42	179	203	382	1,259	1,593	2,852
Salvation Army	93	95	130	225	854	1,061	1,915
Other Denominations	39	107	140	247	910	1,010	1,920
Total	2,049	4,868	8,263	13,131	51,025	66,105	117,130

The attendance shown in the preceding table amounts to 47 per cent. of the total children between the ages of 7 and 15 years, inclusive, at which ages children generally attend Sunday-schools. The number of Sunday-schools and teachers, and the attendance during each of the ten years ended 1894, were :—

Year.	Number of schools.	Number of teachers.	Average attendance of Scholars.		
			Male.	Female.	Total.
1885	1,513	9,986	37,991	46,531	84,522
1886	1,596	10,759	47,307	56,354	103,661
1887	1,614	10,749	48,333	58,999	107,332
1888	1,724	11,267	50,556	61,735	112,291
1889	1,832	11,568	52,778	63,896	116,674
1890	1,840	12,019	54,520	67,365	121,885
1891	1,887	12,169	54,932	68,592	123,524
1892	1,916	12,260	51,739	66,673	118,412
1893	1,969	12,180	51,928	66,187	118,115
1894	2,049	13,131	51,025	66,105	117,130

SOCIAL CONDITION AND CHARITIES.

IN one particular New South Wales, in common with all the provinces of Australasia, differs greatly from other countries, especially those of the Old World: wealth is more widely distributed, and the violent contrast between rich and poor, which seems so peculiar a phase of old-world civilization, finds no parallel in these southern lands. That there is poverty in the colonies is unhappily true; but no one in Australasia is born into conditions from which it is not easy to escape; and that hereditary pauper class, which forms so grave a menace to the freedom of many States, has, therefore, no existence here.

It is estimated that in the United Kingdom nine persons in every hundred possess property to the amount of £100; whereas in the colonies the proportion is not less than 15 per cent. This bare statement shows the great difference between the conditions of life in Australasia and in the richest country of Europe. No poor rate is levied in the colonies; and although from time to time the assistance of the State is claimed by, and granted to able-bodied men who are unable to find employment, that assistance has hitherto generally taken the form of wages and rations allowed for work specially provided by the State to meet a condition of the labour market which is abnormal.

The chief efforts of the authorities in the cause of charity are directed towards the rescue of the young from criminal companionship and temptation to crime, the support of the aged and infirm, and the care of the imbecile or insane; and in granting assistance to private institutions for the cure of the sick and injured, and to societies established for the purpose of relieving the pressing necessities of those of the poorer classes who, through improvidence, and lack of employment by the breadwinner of the family, find themselves temporarily in want. Even where the Government grants aid for philanthropic purposes, the management of the institutions supervising the expenditure is in private hands; and in addition to State-aided institutions, there are numerous other private charities whose efforts for the relief of those whom penury, sickness, or misfortune has afflicted are beyond all praise.

The rescue of the young from crime is attempted by means of Industrial Schools, where children who have been abandoned by their natural guardians, or who are likely, from the poverty or incapacity of their parents, to be so neglected as to render them liable to lapse into crime, re taken care of, educated, and afterwards apprenticed to useful callings; and of reformatories where children are sequestered who have already committed crime, but the accommodation in the latter class of institution is at present very limited, and might well be extended.

PUBLIC HOSPITALS.

In the chapter dealing with Vital Statistics it is pointed out that the number of deaths caused by accident is very great. This arises from the peculiar nature of the occupations in which a large proportion of the adult male population is employed. Though New South Wales has long been settled, its resources are by no means developed, and many men are at work far away from the home comforts of everyday life, and from home attendance in case of sickness or injury. Hospitals are therefore absolutely essential under the conditions of life in the country districts of the colony, and they are accordingly found in every important country town. At the close of the year 1896 there were 107 hospitals or infirmaries in operation or nearing completion in the colony, as shown by the following table:—

Hospitals.	Metropolitan.	Country.	Total.
Subsidised	8	94	102
Non-subsidised	2	1	3
Privately endowed	1	....	1
Government	1	....	1
Total	12	95	107

The number of beds in these institutions was 2,975, of which 2,621 were intended for ordinary cases, and 354 for infectious cases. The average cubic space per bed varied, in the metropolitan area, between 3,135 feet in the St. George's Cottage Hospital, Kogarah, and 650 feet in the Sick Children's Hospital, Glebe; and in the country, between 1,839 feet in the institution at Taree (Manning River), and 473 feet in that at Collarendabri. During the year, 26,697 persons were under treatment as indoor patients. Of this number, 1,701 remained from the previous year, and 24,996 were admitted during 1896. There were discharged 22,142 persons, either as cured or relieved or at their own request, and 773 as past all human assistance, while 2,059 died. The number remaining in hospital at the close of the year was, therefore,

1,723. The following statement shows the number of admissions, discharges, and deaths for the past ten years :—

Year.	Total Patients under treatment.	Number Discharged as cured, etc.	Deaths.		Number of Patients at the close of year.
			Number.	Per cent. under treatment.	
1887	13,438	11,140	1,190	8·9	1,108
1888	15,176	12,569	1,424	9·4	1,183
1889	16,865	14,077	1,477	8·8	1,311
1890	17,041	14,386	1,361	8·0	1,294
1891	19,096	16,183	1,577	8·3	1,236
1892	19,214	16,372	1,440	7·5	1,402
1893	20,424	17,461	1,498	7·3	1,465
1894	23,582	20,259	1,682	7·1	1,641
1895	25,497	21,960	1,829	7·2	1,708
1896	26,697	22,915	2,059	7·7	1,723

The number remaining at the close of the year may be taken as representing the average number resident. It will be seen from the table that the increase in the number of patients has been fairly regular, so that the proportion of the population to be found in hospitals is about the same in each year, the average in 1896 being 1·3 per thousand.

The death rate per 100 persons under treatment during the past ten years was 7·9, while the rate for 1896 was 7·7, or 0·2 below the decennial average. The rate for each year is stated above. The death rate of hospitals in New South Wales, compared with those of Europe, is undoubtedly very high. The number of fatal cases is swollen by the inclusion of the deaths of persons already moribund when admitted, and of persons in the last stage of phthisis. It has elsewhere been pointed out that deaths from accidents form a very considerable proportion of the total number registered—a circumstance due to the nature of the occupations of the people, and the dangers incidental to pioneering enterprise. A large majority of the accidents that occur, when not immediately fatal, are treated in the hospitals; and, indeed, these institutions, especially in country districts, are for the most part maintained for the treatment of surgical cases. When these circumstances are taken into consideration the cause of the apparent excess of deaths in the hospitals of the colony will at once be understood.

Applications for admission into the metropolitan hospitals are made to the Government Medical Officer, and it is the duty of that officer to assign the cases to the different hospitals and asylums in accordance with the nature, severity, and special character of the ailments from which the patients are suffering, and the accommodation available at the various institutions. The number of applications dealt with during 1896 was 12,251, as compared with 9,747 in the preceding year.

Of the applicants during 1896, 1,989 received orders for the Coast Hospital, 1,189 for the Prince Alfred Hospital, 1,066 for the Sydney Hospital, 281 for Moorcliff, and 44 for the Carrington Convalescent Hospital; whilst 2,706 were recommended for admission to the Asylums for the Infirm and Destitute, 4,326 received orders for outdoor treatment, 166 obtained orders for trusses, and 54 orders for spectacles. There were 430 applicants, or 3·5 per cent. of the whole number, who were refused relief, as not being fit subjects for aid. It is necessary to bear in mind that these figures represent cases, not individuals. In some instances the same person has been in an institution several times during the year.

The amount expended by the State in the year 1896–7 for the maintenance of the sick poor was £12,230, the principal beneficiaries being the Prince Alfred Hospital, the Sydney Hospital, the Moorcliff Hospital, and the Carrington Convalescent Hospital. For the last six and a half years the average amount paid by the Government for the maintenance of sick persons has been £11,783. These sums are in addition to £15,352 granted during 1896–7 to the principal hospitals—namely, £9,384 to the Sydney Hospital; £3,876 to the Prince Alfred Hospital; £642 to the Carrington Hospital; £1,450 to the Hospital for Sick Children—and to £36,782 paid on account of country and suburban hospitals, namely, special grants, £7,550; general subsidy, £28,469; and in aid of building funds, £763; while towards the rent of Moorcliff and Victoria Lodge the Government paid £350, and the expenditure on the State Hospital at Little Bay amounted to £9,788 for the year. According to the hospital accounts, the total expenditure of the Government in connection with the hospitals in the Metropolitan area averaged, for the last five years, £36,674 per annum, the amount for 1896 being £41,275; while on the country hospitals the expenditure by the State totalled £34,502 for the last year, the average for five years being £34,187. These amounts are irrespective of payments for attendance on Aborigines; expenses attending special outbreaks of disease in country districts, which are met from the general medical vote; and the maintenance in the Asylums for the Infirm and Destitute of a large number of chronic and incurable hospital cases.

The mere mention of this liberal State expenditure for the relief of the sick might, without explanation, lead to a misapprehension with regard to the amount of destitution in the community. It is desirable, therefore, to state that out of the 12,251 persons who applied for hospital treatment at the Government expense, or for admission to the Asylums for the Infirm and Destitute during the year 1896, only 4,233 were natives of New South Wales, while 980 came from the other Australasian colonies, 5,920 from the United Kingdom, and 1,118 from other countries, including 8 Chinese and Japanese, and 138 Indians. It is rather remarkable that while the natives of the United Kingdom form less than a quarter of the total population of the colony, they furnish, nevertheless, nearly one-half of those seeking hospital relief. The total number of applicants, excluding the natives of New South Wales, was 8,018, of whom 532 had been less than twelve months in the colony, 375 less than six months, and 132 less than one month. It is not an infrequent occurrence to find patients who apply for hospital relief admit that they have arrived direct from a neighbouring colony, solely for the purpose of obtaining this relief. Many arrive in the last stage of phthisis, or in a condition of chronic ill-health, and the adoption of some legislation, such as exists in other colonies, to prevent the influx of persons likely to become a charge upon the State, is a pressing necessity.

Little exact information is to hand respecting the outdoor relief afforded by hospitals, this form of charity not being so important as indoor relief; nevertheless, the number of attendances during 1896 was 111,093, and estimating four attendances to each person, 27,773 persons were relieved.

Omitting from consideration the Government establishment at Little Bay, the expenditure in 1896 of all the hospitals of the colony, for purposes other than building and repairs, was £109,782, representing an average of £40 6s. per bed. This sum is somewhat in excess of the truth, as a deduction should be made for out-patients, but the information is not available. The average cost of each indoor patient treated was £4 10s. 4d. The subscriptions and donations received from private persons amounted to £54,459, including receipts from patients to the amount of £11,561; and the miscellaneous receipts amounted to £6,803; in all, £61,262 from private sources and from patients. From the State the sum of £63,685 was received, so that the total revenue of hospitals from all sources was £124,947. The following statement shows the revenue and expenditure of these institutions for the year 1896:—

Revenue and Expenditure.	Metropolitan.	Country.	New South Wales.
Receipts—	£	£	£
Government aid	29,183	34,502	63,685
Private contributions	20,389	34,070	54,459
Other sources	3,462	3,341	6,803
Total receipts	53,034	71,913	124,947
Expenditure—			
Building and repairs	2,903	8,308	11,211
Maintenance (including salaries)	41,249	56,732	97,981
Miscellaneous	3,912	7,889	11,801
Total expenditure	48,064	72,929	120,993

The expenditure in connection with the Little Bay Hospital has not been included in the figures stated above, that institution being entirely in the hands of the Government. At this hospital, 2,388 patients were treated during the year. The average number resident daily was 204, and the average stay in hospital of discharged patients was 31·3 day There were 120 deaths, and 1,641 patients were discharged cured, 38 relieved, and 40 unrelieved. The number of lepers under detention the lazaret on 31st December, 1895, was 37, and at the end of 189 16. The expenditure on the Little Bay Hospital during 1896 wa £12,092, so that the total expenditure of the State on hospitals amounte to £75,777. The gross expenditure by the Government during the finan cial year 1896–7 upon all hospitals and asylums, with the exception asylums for the insane and Mission Stations for Aborigines, was £205,53 or inclusive of these institutions, £365,089. This sum includes £102,50 expended on the asylums for the infirm and destitute; £5,900 for th support of women and children in benevolent asylums; £7,310 for th maintenance of deserted children, paupers, &c.; £8,250 granted to th Benevolent Society, Sydney; and £3,500 to the Benevolent Society Newcastle. The Government institutions for the relief of destitut adults, viz., the two asylums at Parramatta, the asylums at Liverpoo Newington, and Rookwood, and the cottage homes for married couples Parramatta, contained altogether 3,375 inmates at the end of 1896. Th number of inmates in each institution will be found in tables on pages 74 and 748, but, in addition to the indoor relief, considerable aid is extende to the outside poor. Apart from medical advice and medicines, outdoo relief consists largely of supplies of provisions. Information showin the full extent of the relief thus afforded at all institutions is not availabl but the goods gratuitously distributed at the Benevolent Asylum Sydney, during the year 1896, were as follow:—Bread, 400,087 loaves flour, 204,933 lb.; meat, 195,343 lb.; tea, 22,095 lb.; sugar, 100,394 lb. sago, 8,905 lb.; rice, 3,590 lb.; oatmeal, 8,009 lb.; arrowroot an cornflour, 162 lb.; and milk, 513 quarts. Boots and blankets forme portion of the bounty distributed; and, in addition, a sum of mone was granted in payment of rent allowances, so that many of the needy were assisted by the helping hand of this deserving charity in their ow homes. The cost of provisions distributed during the year was £4,56 for ordinary cases, and £4,056 special relief to the unemployed, or total of £8,623, and money allowances amounted to £2,185.

Besides hospitals properly so-called, there exist various institution for the reception of fallen women; for the treatment of the blind, an the deaf and dumb; for the relief of consumptives; for ministering t the wants of destitute women; for granting casual aid to indigent persons; for the help of discharged prisoners, and for many other pur poses which rouse the charity of the people. Steps are now being taken towards the establishment of a new Hospital for Consumptives, where the treatment of persons suffering from phthisis may be carried out under the most favourable conditions, and in the light which the latest medical knowledge has thrown upon this insidious disease.

The Infants' Home, Ashfield; the Hospital for Sick Children, Glebe; the Institution for the Deaf and Dumb and the Blind, Newtown, beside other institutions in different parts of the colony, receive help fro the State; but they are maintained principally by private contributions. The management of these, and, indeed, of almost all institutions for the relief of the sick, is in the hands of committees elected by persons subscribing towards their support. In addition to the above, there are several institutions under the control of the Roman Catholic body, and supported entirely by private charity. At the City Night Refuge and Soup Kitchen there were no less than 105,850 meals given during 1896, and shelter was provided in 47,450 instances.

DESTITUTE CHILDREN.

The problem of dealing with destitute children and those liable from their environment to become criminal is naturally surrounded with very great difficulty, and its solution was attempted many years ago by the establishment of the orphanages at Parramatta and the destitute children's asylum at Randwick, as well as the Vernon Training Ship for boys, and the Biloela Reformatory and Industrial School for girls. The system of crowding children in large establishments was rightly considered as open to many grave objections, and in 1880 a scheme of separate treatment was inaugurated. Accordingly an Act was passed by the Legislature, empowering the formation of a Board, to whose charge the destitute or neglected children of the colony were entrusted.

The State Children's Relief Board commenced its operations on the 5th April, 1881, with 24 boys and 35 girls, or a total of 59 children. During the sixteen years of its existence, the Board has dealt with no less than 8,387 children, who have been removed for boarding out from the State institutions of the colony, and others partly supported by public contributions. Of that number, 4,716 children had been either discharged to their parents or otherwise removed from the control of the Board, so that there were remaining under its charge on the 5th April, 1897, 3,671, of whom 2,085 were boys and 1,586 were girls. Of these children, 2,685, or 1,533 boys and 1,152 girls, were boarded out to persons deemed to be eligible after strict inquiry by the Board. The rates of payment range from 5s. to 10s. per week, the higher rates being paid for infants under one year, who require more than ordinary care. A strict supervision is exercised by the officers of the Board in order to see that the children are not ill-treated or neglected, and in addition to this there are voluntary lady visitors in all parts of the colony who keep a constant watch upon these children of the State. Besides the boarded-out children, there were also, in April, 1897, 126 who had been adopted without payment, and who were, in the main, treated by their foster-parents as though they were their own kin; 55 of these adopted children were boys, and 71 were girls. Then there were 497 boys and 363 girls, or 860 children in all, who were apprenticed but were still under the control of the Board. It is asserted that the practical success of the boarding-out system is exemplified by the expansion shown in these figures. Upwards of thirteen hundred children have grown up and been taught useful trades and profitable occupations, many of whom would otherwise have drifted into the criminal or pauper population.

During the year, 1,510 applications were received by the Board for State Children. Of these applications, 1,070 were inquired into by the Inspectors attached to the Department, with the result that 769 were approved of, and 301 were refused—in most cases because the character of the applicants did not appear to come up to the standard required by the Board. The system of placing delicate young children out to nurse with healthy matronly women in the country districts has been found to work well. In April, 1897, there were 93 such children under control, at a total cost of £2,090; and there were 126 children under the control of guardians, by whom they had been adopted, or to whom no subsidy was paid by the State. Of the apprentices, nearly all the girls were in domestic service, while over seven eighths of the boys were with farmers. The total cost of managing this division during the twelve months was £2,150, expended for inspection and clothing. Taken as a whole, the apprentices are turning out remarkably well, and it is very seldom there are any serious complaints either from the children or from their guardians. At the close of April, 1897, there were 17 children in the depôt, 9 in hospitals, and 137 at the cottage homes for invalids at Parramatta and Mittagong. Although as many as 1,136 children passed through the Central Home at Paddington during the year, owing to the system of prompt removal to the country the average daily number at that institution was not more than 19. During the year, 19 boys and 12 girls died. It is claimed that the system pursued by the Board of extending to the dependent children of this country the privileges of family life and home training in place of the monotonous and artificial style of living in large asylums has been attended with successful results, and the cost to the State, equal to £14 12s. 10d. per child dealt with, or £14 3s. 11d. after deducting parents' contributions, can scarcely be looked upon as excessive.

The number of children under the control of the Board for each year ending April, since 1881, is shown in the following table:—

Year ending April.	Boys.	Girls.	Total.	Year ending April.	Boys	Girls	Total.
1881	24	35	59	1890	1,380	904	2,284
1882	40	63	103	1891	1,417	952	2,369
1883	119	188	307	1892	1,390	1,006	2,396
1884	232	320	552	1893	1,472	1,065	2,537
1885	564	462	1,026	1894	1,606	1,203	2,809
1886	779	587	1,366	1895	1,822	1,352	3,174
1887	1,099	703	1,802	1896	1,954	1,502	3,456
1888	1,202	758	1,960	1897	2,085	1,586	3,671
1889	1,316	857	2,173				

The ages of children placed out since the inauguration of the Board's operations are as follow:—

Age.	Number.
Under 1 year	247
1 and under 2 years	282
2 ,, ,, 3 ,,	536
3 ,, ,, 4 ,,	681
4 ,, ,, 5 ,,	701
5 ,, ,, 6 ,,	763
6 ,, ,, 7 ,,	821
7 ,, ,, 8 ,,	793
8 ,, ,, 9 ,,	870
9 ,, ,, 10 ,,	830
10 ,, ,, 11 ,,	681
11 ,, ,, 12 ,,	516
12 years and over	666
Total	8,387

The largest number of children dealt with by the Board have been received from the Benevolent Asylum, Sydney, 5,121 having been transferred from that institution up to the end of April, 1897; while from the Randwick Asylum 307, and from the Orphan Schools, Parramatta, 362 children have been taken. The orphan schools were closed in September, 1886, and the children who would formerly have been sent to them are now taken charge of by the Board. The remaining children were removed from other public institutions and hospitals: From the Vernon and Sobraon, 365; from the Infants' Home, Ashfield, 81; from the Industrial School, Parramatta, 153; from the Shaftesbury Reformatory, 395; from Little Bay Hospital, 30; from the Benevolent Asylum, Newcastle, 44; from the Prince Alfred Hospital, 20; from the Children's Hospital, 24; from the Sydney Hospital, 17; from the Boys' Home, Rydalmere, 71; from the Carpenterian Reformatory, 40; from the St. Vincent de Paul Home, 74; from the Deaf and Dumb and Blind Institution, 16; and from other institutions, 1,260; making a total of 8,387 as aforesaid. The gross amount expended by the Government during the year on the State Children's Relief Department, including the Parramatta and Mittagong Cottage Homes, was £43,602, and parents' contributions toward the maintenance of their children amounted to £839.

From returns prepared it is estimated that since the initiation of the boarding-out system in this colony it has saved not less than £170,000 to the State, and the children individually are more satisfactorily treated than could be the case in crowded institutions. The number of destitute children in State institutions, including boarders paid for by the Government, at the end of each of the past ten years, was as follows:—

Year.	Number.	Year.	Number.
1887	1,973	1892	2,239
1888	2,091	1893	2,502
1889	2,218	1894	2,708
1890	2,077	1895	3,041
1891	2,111	1896	3,240

During the last few years the number has largely increased.

Four industrial schools and reformatories are maintained by the State. There are the Parramatta Industrial School and the Shaftesbury Reformatory for girls; the Sobraon training-ship for boys; and the Carpenterian Reformatory at Eastwood, also for boys. The training-ship for a long time was used practically as a reformatory as well as an industrial school, for the absence of a reformatory led to many boys appearing before the Courts being sent to the ship. In August, 1895, however, the Carpenterian Reformatory was opened on part of the Brush Farm Estate, and arrangements were made to receive therein criminal boys, and to subject them to proper discipline and to teach them useful trades. At the end of the year 1896 there were 91 boys confined in the Institution; but in the course of 1897 the Minister for Public Instruction released 39 of the boys, owing to the deficient accommodation provided by the building.

The following table shows the number of children confined in the industrial schools and reformatories during the last ten years. The ship used as the training school for boys was formerly the Vernon. During 1887 the industrial school for girls was removed from Biloela, Cockatoo Island, to the building formerly occupied by the Roman Catholic Orphan School, Parramatta:—

Year.	Vernon or Sobraon.	Parramatta (formerly Biloela).	Shaftesbury Reformatory.	Carpenterian Reformatory.	Total.
1887	203	90	26	......	319
1888	209	93	28	......	330
1889	227	87	42	......	356
1890	208	64	32	......	304
1891	230	80	32	......	342
1892	278	78	25	......	381
1893	303	103	22	......	428
1894	349	117	2	......	468
1895	380	120	1	30	531
1896	331	124	15	91	561

The following table gives the number of destitute children in other public and private institutions during the ten years ended 1896 :—

Year.	Randwick Asylum.	Benevolent Asylum.	Infants' Home, Ashfield.	State Children's Relief Department.		Other Institutions.	Total.
				Boarded out.	In Cottage Homes.		
1887	267	101	23	1,278	......	115	1,784
1888	246	168	56	1,341	108	14	1,933
1889	216	151	118	1,348	117	25	1,975
1890	212	161	62	1,373	116	16	1,940
1891	183	147	52	1,389	122	23	1,916
1892	176	153	60	1,464	143	558	2,554
1893	172	119	42	1,741	153	579	2,806
1894	148	83	59	1,948	146	842	3,226
1895	146	135	50	2,266	162	857	3,616
1896	146	147	43	2,488	152	879	3,855

For the first five years shown in the foregoing statement the number of destitute children averaged 1,910 per annum, or 1·76 per thousand of the total population; while for the last five years the yearly average was 3,211, or 2·57 per thousand. The actual increase of destitute children, however, is not so great as these figures show, for in the early part of the period the returns received from the private institutions were not so complete as they are now.

The appended table shows the number of children under 15 years of age maintained in reformatories and in charitable institutions of a public and private character at the end of 1896. In the figures relating to Government asylums are included the 2,488 children boarded out by the State Children's Relief Department :—

Institutions.	Children.
Government	3,240
Public	543
Church of England	17
Roman Catholic Church	583
Wesleyan	19
Salvation Army	14
Total	4,416

The number of children supported by public and private charity at the end of 1895 was 4,147, so that there was an increase of 269 during the twelve months. The deaths of children in charitable institutions in 1896 numbered 171, the total for 1895 being 133. In the number for each year the deaths of boarded-out children are included.

DESTITUTE ADULTS.

The number of destitute adults, or persons 15 years of age and over, wholly or in part supported by the State as inmates of the various asylums of the colony at the close of the year 1896, was 3,758, of whom 2,831 were males, and 927 females. The great majority of those in the asylums are persons of very advanced years who are unable to work. The inmates of the Benevolent Asylum, Sydney, however, form an exception to this rule, as a large proportion of them are destitute women who use the institution as a lying-in hospital. The numbers of males and females in the various institutions, with the ratio per 1,000 of adult population at the close of each of the past ten years, were as follow :—

Year.	Males.	Females.	Total.	Per 1,000 of Adult Population.		
				Male.	Female.	Total.
1887	1,719	471	2,190	5·0	1·8	3·6
1888	1,820	521	2,341	5·1	1·9	3·7
1889	1,912	588	2,500	5·1	2·0	3·8
1890	2,039	582	2,621	5·2	1·9	3·8
1891	2,147	603	2,750	5·3	1·9	3·8
1892	2,257	657	2,914	5·4	2·0	4·0
1893	2,523	666	3,189	6·0	2·0	4·2
1894	2,576	741	3,317	6·0	2·1	4·3
1895	2,851	781	3,632	6·5	2·2	4·6
1896	2,831	927	3,758	6·3	2·6	4·7

The following shows the number of adults remaining in the various Benevolent Asylums at the close of the years 1887 to 1896 :—

Year.	Sydney (Pitt-street).	Newington.	Liverpool.	Parramatta.			Rookwood.	West Maitland.	Newcastle.	Other Asylums.	Total.
				George-street.	Mac-quarie-st.	Cottage Homes.					
1887	77	366	767	644	258	...	...	35	28	15	2,190
1888	97	397	778	721	286	...	...	36	26	...	2,341
1889	83	454	801	771	283	39	...	37	32	...	2,500
1890	92	462	789	867	288	42	...	39	28	14	2,621
1891	103	491	793	938	284	62	...	44	34	1	2,750
1892	110	519	836	1,000	312	43	...	51	41	2	2,914
1893	65	577	887	984	332	43	202	53	40	6	3,189
1894	66	639	785	995	321	43	379	42	40	7	3,317
1895	105	637	844	1,076	296	44	427	46	39	118	3,632
1896	105	662	779	982	345	44	563	48	39	191	3,758

The Liverpool Asylum and the two large institutions at Parramatta are homes for males ; the Benevolent Asylum, Sydney, is for females;

and the institution at Newington is used chiefly for persons of this sex. Old and indigent married couples have the use of the Cottage Homes, Parramatta, which were opened in March, 1889. Owing to the asylums at Liverpool and Parramatta becoming overcrowded, the Government, during the latter part of 1892, decided to utilise the buildings erected at Rookwood several years previously, and intended for a reformatory for boys, though never used for that purpose; consequently, in March, 1893, the premises were opened as an additional asylum for male inmates, of whom there were 202 in the institution at the close of the year, 379 at the end of 1894, 427 at the end of 1895, and 563 at the end of 1896.

In the following table will be found the number of adult male and female inmates of all charitable institutions from which information was received at the close of 1896:—

Institutions.	Males.	Females.	Total.
Government	2,725	650	3,375
Public	100	347	447
Church of England	33	21	54
Roman Catholic	33	163	196
Salvation Army	37	45	82
Hebrew	7	4	11
Total	2,935	1,230	4,165

The above total of 4,165 is lower by 86 than the total for 1895, which was the highest on record, and higher by 250 than the number for 1894. During 1896 the deaths of 747 adults took place in the various institutions.

Adding together the numbers of adults and children in order to show the proportion, as compared with the whole population, of those in the colony dependent on the State for support, the ratios per 1,000 for the last ten years are found to be as follow:—

Year.	Children.	Adults.	Total.	Per 1,000 of		
				Children under 15 years.	Adult Population.	Total Population.
1887	1,973	2,190	4,163	4·8	3·6	4·2
1888	2,091	2,341	4,432	5·0	3·7	4·2
1889	2,218	2,500	4,718	5·3	3·8	4·4
1890	2,077	2,621	4,698	4·8	3·8	4·2
1891	2,111	2,750	4,861	4·7	3·8	4·2
1892	2,239	2,914	5,153	4·9	4·0	4·3
1893	2,502	3,189	5,691	5·3	4·2	4·7
1894	2,708	3,317	6,025	5·6	4·3	4·8
1895	3,041	3,632	6,673	6·2	4·6	5·2
1896	3,240	3,758	6,998	6·5	4·7	5·4

The proportion of paupers to the whole population shown in the above table, though perceptibly increasing, is still small compared with that of other countries. The proportion of population in the United Kingdom maintained in the workhouses and other institutions of a similar character at the cost of the ratepayers was as follows at the beginning of the year 1896 :—

England and Wales	7·1 per thousand.
Scotland	6·3 ,,
Ireland	9·3 ,,
United Kingdom	7·3 ,,

as against 5·2 per thousand in this colony dependent upon the State for support, a state of things plainly illustrating the happier lot of the people of Australia. There is a large amount of outdoor relief in the United Kingdom which is not included in the above figures. If this were taken into consideration the proportions would be:—England and Wales, 27·1 per thousand; Scotland, 23·9; Ireland, 21·3; and the United Kingdom, 26·1 per thousand.

The receipts and disbursements of the charitable institutions in the colony during the year 1896 were as shown below. The figures do not include the money received and expended by several denominational institutions the financial condition of which is not made public:—

Receipts :—		Disbursements :—	
Government aid	£94,160	Buildings and repairs	£9,822
Private contributions	26,230	Maintenance (including salaries)	120,540
Other sources	30,620	Other expenses	14,891
Total	£151,010	Total	£145,253

TREATMENT OF THE INSANE.

The treatment of the insane is dealt with under the head of Vital Statistics. The average number of insane persons resident in hospital during 1896 was 3,710, while the total number under care was 4,591. These numbers include those resident at the four licensed houses for the insane at Cook's River, Picton, and Ryde. The gross expenditure on hospitals for insane, wholly supported by the State, during 1896, was £99,900, while the collections from private sources amounted to £13,857, leaving a net cost to the Government of £86,043. The average weekly cost per patient was 10s. $5\frac{3}{4}$d., without deducting collections, and 9s. $0\frac{1}{4}$d. after these were deducted, while the net annual expenditure per head of population was 1s. 4d. The total expenditure by the State on all institutions connected with the care of the insane, inclusive of the cost of maintenance of patients in the Reception House, Darlinghurst, of the amount paid to the South Australian Government for the maintenance of insane patients from the Broken Hill District, and of general expenses, was £103,928, and the total collections amounted to £13,915, so that the actual expenditure during the year was £90,015. The arrangements by which a number of Government patients were maintained at the licensed house at Cook's River ceased at the end of 1894. A few weeks previously all the Government patients were removed to the public institutions, the majority being sent to Rydalmere, where new wards had been erected; thus, at that date, for the first time for twenty-eight years, the whole of the patients under the care of the Government were housed within the walls of its own institutions. The treatment meted out to the insane is that dictated by the greatest humanity, and the hospitals are fitted with all conveniences and appliances which modern science points out as most calculated to mitigate or remove the affliction under which these unfortunates labour.

Protection of the Aborigines.

A Board is in existence for the protection of the aborigines, the object of which is to ameliorate the condition of the blacks, and to exercise a general guardianship over them. There are also three mission stations for the benefit of the Aborigines. These are Cumeroogunga, on the river Murray; Warangesda, on the Murrumbidgee; and Brewarrina, on the Darling. The mission stations are under the control of a society called the Aborigines' Protection Association, who are responsible to the Board for their administration. The natives at these settlements are comfortably housed, and are encouraged to devote their energies to agricultural and kindred occupations, and elementary education is imparted to the children.

The amount expended by the Government during 1896 for the benefit of the Aborigines was £17,312. This included an expenditure of £9,581 by the Board on Aborigines generally; £616 for the fares of Aborigines travelling on the railway, and £2,764 in liquidating claims incurred by the Aborigines Protection Association in connection with the mission stations. The sum of £860 was expended on medical attendance and medicine; £1,029 on buildings, school books, etc.; £2,395 on blankets, clothing, etc.; and £67 for burial expenses. The Aborigines are referred to at length in the chapter on Population.

Total Expenditure on Charity.

The total expenditure of the State in connection with all forms of relief and in aid of hospitals, asylums for the insane, and other charitable institutions, amounted in 1896 to £425,478; adding to this the amount of private subscriptions, donations, and other receipts of hospitals, etc., the poor and the unfortunate benefited during the year to the extent of about £557,500. This sum, though not excessive in proportion to the population, may yet appear large in view of the general wealth of the colony, which should preclude the necessity of so many seeking assistance; for the present there is no risk that the charitable institutions will encourage the growth of the pauper element, and that free quarters and free food will be made so accessible that those who are disinclined to work will be tempted to live at the public expense.

GOVERNMENT LABOUR BUREAU.

Owing to the stoppage of public and private works consequent upon depression in the money market, there were, in the latter part of 1891, a large number of persons in the colony who, though able and willing to work, were unable to find any work to do. So great an amount of this kind of distress was in existence that the Government felt compelled to take steps for the purpose of helping genuine workers to the employment they were desirous of obtaining; and in February, 1892, a Labour Bureau was formed, where those who wanted work done could obtain labour, and those who desired to work could hear of whatever there was to do. No charge is made for registration, and the matter of wages is left to be settled between the parties concerned. In the first year of its existence the Bureau found employment for 8,154 persons, in the second year for 10,357, in the third year for 16,380, in the fourth year for 20,576, and in the fifth year for 13,718, making a total of 69,185 altogether. In addition to these, it is estimated that about 5,000 persons indirectly obtained work through the medium of the Bureau. Relief was given to those in absolute want, in the shape of rations, of which 30,960 were issued during 1892-3, 52,525 in 1893-4, 41,884 in 1894-5, 318,200 in 1895-6, and 17,065 in 1896-7, at an average cost of about 1s. 6d. each. Relief works carried on during 1895-6, for which payment was made in rations, account for the large increase shown for that year. These works had practically been completed before the beginning of the year 1896-7. Private subscriptions have been disbursed among the needy, and parcels of clothing distributed. The daily attendance of unemployed at the Bureau is from 500 to 600. The total cost of relief for 1896-7 was £1,429, as compared with £23,866 for the preceding year.

LAW AND CRIME

POLICE.

[the end of the year 1896 the police force of New South Wales consisted of 1,874 men of all ranks, of whom 701 were mounted. force, which comprises 11 superintendents, 10 inspectors, 31 sub-ctors, 64 senior-sergeants, 113 sergeants, 284 senior-constables, 5 constables, and 16 detectives, is commanded by an Inspector-ral, who is under the control of the Chief Secretary of the colony, police being directly in the service of the State. The system of icipal government which exists in New South Wales is a very rfect one, and the question of handing over to the incorporated ; the power to raise local bodies of constabulary and to appoint own honorary magistrates has not been seriously considered; nor if such powers did exist is it at all likely that any municipality d, were the matter left optional, care to burden itself with the rvation of order while the Government continued to perform this in the unincorporated districts.

low will be found the number of police in the metropolitan and try districts at the close of each of the last ten years. It will be that with the growth of population the force is steadily increasing rength, although it is scarcely keeping pace with the advance made e numbers of the people :—

Year.	Metropolitan.	Country.	Total.	Number of Inhabitants to each Police Officer.
1887	502	989	1,491	684
1888	518	995	1,513	694
1889	543	1,024	1,567	690
1890	594	1,057	1,651	679
1891	643	1,022	1,665	699
1892	697	1,059	1,756	682
1893	714	1,062	1,776	689
1894	731	1,088	1,819	688
1895	745	1,108	1,853	690
1896	749	1,125	1,874	687

ie protection of life and property is not the only duty which the e are called upon to perform. On the contrary, a large portion of time is taken up in the collection of the agricultural and stock lules and the returns of works and manufactories, and other work like character; in many cases they also act as Clerks of Petty

Sessions and Wardens' clerks, and fill other offices having no direct connection with police duties. The test which is sometimes applied in order to ascertain the law-abiding character of the populations of the various colonies, namely, to compare the numbers of persons protected by each officer, is quite worthless unless the diverse nature of the duties performed by the police and the vast difference in the areas of the provinces are also taken into consideration. The comparison afforded by the following table may, therefore, only be accepted for what it is worth. The figures, like those previously given, refer to the end of the year 1896 :—

Colony.	Police.			To each Police Officer.	
	Metropolitan.	Country.	Total.	Inhabitants.	Square miles.
New South Wales	749	1,125	1,874	687	166
Victoria	680	732	1,412	835	62
Queensland	163	641	804	580	831
South Australia	160	209	369	972	2,449
Western Australia	87	351	438	273	2,228
Tasmania	43	218	261	627	100
New Zealand	54	463	517	1,366	202

A comparison of the police forces of the principal cities of Australasia, the United Kingdom, and the United States, is given in the next table, and it would appear that the Australasian capitals have proportionately less police supervision than many of the other places enumerated in the list. This, however, of itself argues nothing in favour of the law-abiding character of the population of the Australasian cities, but rather that a large number of police could with advantage be added to the force now employed for their protection :—

Cities.	Strength of Police.	Population to each Police Constable.	Cities.	Strength of Police.	Population to each Police Constable.
Australasia—	No.	No.	United Kingdom—	No.	No.
Sydney	749	547	Manchester	1,031	490
Melbourne	680	663	Edinburgh	507	545
Brisbane	163	619	Glasgow	1,310	531
Adelaide	160	907	Dublin	1,145	308
Perth	87	392	United States—		
Hobart	43	881	New York	5,051	299
Wellington	54	773	Philadelphia	2,451	427
Auckland	57	1,011	Chicago	3,400	342
United Kingdom—			Brooklyn	1,836	438
London	14,260	395	Boston	1,094	408
Liverpool	1,294	400	Baltimore	817	531

The total cost of the police service in New South Wales for the year 1896–7 was £330,516. This sum, however, includes not only the pay of the officers and men, but also the expenses of equipment, forage, and mounting, as well as of the office establishment. The pay of a constable ranges from 6s. to 8s. per diem, while sergeants receive from 9s. 3d. to 10s. 6d. per day. Detectives receive from 9s. to 12s. per day.

A comparison of the cost of the police forces of the various colonies will be found below. The greater proportion of mounted troopers in those colonies where very large and thinly-populated districts have to be scoured tends to make the average cost somewhat higher than in the other provinces :—

Colony.	Police Force.	Total Cost of Force.	Average Cost per Constable.	Average Cost per head of Population.
	No.	£	£ s. d.	£ s. d.
New South Wales	1,874	330,516	176 7 4½	0 5 1½
Victoria	1,412	247,552	175 6 4¾	0 4 2½
Queensland	804	173,423	215 14 0	0 7 5¼
South Australia	369	75,339	204 3 5	0 4 2½
Western Australia	438	83,140	189 16 4	0 13 11
Tasmania	261	34,063	130 10 2¼	0 4 2
New Zealand	517	99,351	192 2 11¾	0 2 9¾
Australasia	5,675	1,043,384	183 17 1¼	0 4 10½

COMPILATION OF CRIMINAL STATISTICS.

No one who has given his attention to the subject of the prevalence of crime in Australasia can have failed to be struck by the fact that, in comparison with the other colonies, New South Wales has always shown a remarkably high rate of offenders—a rate which, it is true, has, as in the case of the other colonies, fallen with the social progress of the people, but which has, nevertheless, year after year, pertinaciously maintained its unenviable pre-eminence amongst the provinces, with the exception of Western Australia, which is in quite an exceptional position. In one quarter the theory was put forward that this state of affairs must be due to a blood taint derived from the bond population of early days ; but unfortunately for this conjecture, the statistics show that at the time it was hazarded only 36·2 per cent. of the offenders were natives of the colony, while even at present the proportion barely reaches one-third. Undoubtedly the position occupied by New South Wales is not one into which the colony has been forced and held there by one cause alone. The absence of an Act to prevent the influx of criminals from other provinces; the large floating population of the colony; the differences in the criminal code; the greater strictness of police administration—all these are matters which must be recognised as having exerted and as exerting an appreciable influence on the prevalence of crime in New South Wales. But careful investigation during the last few years has shown that the returns, both of the police and of the Clerks of Petty Sessions, have painted the colony in much darker hues than the actual number of the criminal population warranted. Formerly great importance was attached to the number of apprehensions shown by the police to have been made during the year; but it has become evident that the figures obtained from the police are somewhat misleading, as they represent the total transactions of the various stations and offices rather than the actual number of persons apprehended. For example, it is the practice to count an arrested person at every office into which he may be brought prior to making an appearance before the Bench, and it is not too much to say that the police returns are overstated to the extent of something like 13 per cent. Under these circumstances, it was thought better to abandon altogether the figures compiled by the police, and to rely upon the returns of the courts alone, since every person who is entered in the charge-books must be brought up in open court; but this course has only been possible within the past two years, for the returns of the Clerks of Petty Sessions themselves have been to a great extent misleading. Indeed, it has now been considered advisable to discard the statistics of magistrates' courts for all years prior to 1891, for down to 1890 the form of return filled up by the Clerks of Petty Sessions, which was that drawn up for use in the United Kingdom, was such as to lend itself very readily to careless compilation, being of such a kind that the entries made could not be checked in the statistical office. Accordingly, another form of return, which would ensure the accurate entry of the proceedings in magistrates' courts, was prepared and came into use for the first time in 1891. Since that year imperfections in the compilation of the statistics have been remedied one by one as they have manifested themselves. It was found that a large element of confusion was introduced by the presentation of the business of the courts on the different bases of cases, offences, and persons. One case, of course, might cover a number of persons, and one person might be charged with several offences on the one appearance. To make a proper comparison between the population and the persons who are given to lawlessness the number of offenders should be taken, and it is on this basis that the figures have been compiled for 1894, 1895, and 1896. For the preceding three years shown in the comparative tables which follow this explanation, only the actual numbers of offences were obtainable, and the figures have therefore been reduced to the basis of offenders by a method which gives as correct an estimate as it is possible to obtain.

MAGISTRATES' COURTS.

In the Metropolitan district of the colony, the Courts of Petty Sessions are presided over by Stipendiary Magistrates; and in the country districts by Police Magistrates and Justices of the Peace, the latter of whom are honorary officers. All persons entered in the charge-books of the police, except such as have been committed by a Supreme Court Judge or by a Coroner, must be brought up at Petty Sessions, either to be dealt with summarily or to be committed to a higher tribunal. With the exception of breaches of the Distillation Act, the Customs Regulations' Acts, the Chinese Restriction Act, and the Children's Protection Act, which are punishable in the lower courts by a maximum sentence of one year's imprisonment in the case of the first two statutes, and of two years' imprisonment in the case of the other two, the jurisdiction of the magistracy of New South Wales is limited to offences involving a penalty of not more than six months' imprisonment. A magistrate is not empowered to pass cumulative sentences; but while a person is undergoing a term of imprisonment for the committal of one offence he may be brought up in a lower court to answer to another charge, and if convicted may be sentenced to another term, to take effect from the expiry of the first sentence.

Exclusive of those charged as being of unsound mind, the persons brought before magistrates during the year 1896 numbered 56,498, of whom 36,642 had been arrested, while 19,856 appeared on private and police summons. This gave a proportion of 4,387 per 100,000 of population, as compared with 4,790 in the year 1895; so that during the twelve months the amount of crime, as disclosed by the returns of the lower courts, declined to the extent of 403 per 100,000 inhabitants. Below will be found a table showing in what manner the accused persons were brought up to answer the charges preferred against them, and how their cases were disposed of. It is to be understood that where several offences were charged against a person on the one appearance, account is only taken of the most important:—

How brought up.	Persons charged before Magistrates.	Summarily dealt with.			Committed.
		Convicted.	Discharged, etc.	Total.	
By arrest	36,642	32,300	3,085	35,385	1,257
By private and police summons..................	19,856	13,193	6,586	19,779	77
Total	56,498	45,493	9,671	55,164	1,334

It will be seen from the above table that of the 56,498 persons charged before magistrates during the year, only 1,334 were committed to higher courts, and no less than 55,164 were summarily dealt with—convictions being recorded in 45,493 cases, while 9,671 persons were discharged after evidence had been taken, or against whom proceedings were not pressed. Appended is a division of the accused persons according to sex, from which it may be gathered that while females contributed 7,765 to the ranks of the offenders, only 1·07 per cent. of their number were committed to a higher tribunal, as compared with 2·57 per cent. of the males. Of the females committed, about one-half were charged with larceny, bigamy, and crimes connected with the birth of children :—

Sex.	Charged before Magistrates.	Summarily dealt with.			Committed.
		Convicted.	Discharged, etc.	Total.	
Males	48,733	39,052	8,430	47,482	1,251
Females	7,765	6,441	1,241	7,682	83
Total	56,498	45,493	9,671	55,164	1,334

Comparing the male and female offenders with the population, it will be found that of every 100,000 males in the colony during 1896, 7,060 were charged with offences against the law, while of an equal number of females but 1,299 were accused before magistrates. The summary convictions give the proportions of 5,658 per 100,000 males and 1,078 per 100,000 females. In the case of committals, however, the females emerge from the comparison on much more favourable terms ; for while 181 of every 100,000 males were sent up to higher courts during the year, the proportion of females so dealt with was but 14. The preceding table, reduced to a population basis, will be found below :—

Sex.	Per 100,000 of Population.				
	Charged before Magistrates.	Summarily dealt with.			Committed.
		Convicted.	Discharged, etc.	Total.	
Males	7,060	5,658	1,221	6,879	181
Females	1,299	1,078	207	1,285	14
Persons	4,387	3,533	751	4,284	103

Although the mean population within the metropolitan area in 1896 was 409,250 as compared with 878,505 in the country districts, 29,290 of the 56,498 persons charged before magistrates during the year were brought up in the metropolitan division. On the basis of population, this gives a proportion of 7,157 offenders per 100,000 inhabitants in the metropolis, or considerably more than twice the rate for the country, viz., 3,097 per 100,000. It is, of course, obvious that where the temptation to break the law is greatest, the largest number of offenders will be found ; and it is also the case that many offences, such as drunkenness and other offences against good order, are liable to be promptly dealt with in large aggregations of population, while to a great extent they escape attention in sparsely-settled districts. If an examination be made into the nature of the offences with which the accused were charged, it will be found that, while the total rate of the metropolitan district was 131 per cent. higher than that of the country, the rate of offences against the person and against property in Sydney and suburbs was but 77 per cent. above the corresponding rate for the other parts of the colony. The difference in the percentage of offenders committed in the two divisions, which may be seen from the following table, is chiefly attributable to the great excess of persons within the metropolitan area charged with breaches of good order :—

District.	Persons charged before Magistrates.	Summarily dealt with.			Committed.
		Convicted.	Discharged, etc.	Total.	
TOTAL NUMBER OF OFFENDERS.					
Metropolitan............	29,290	23,984	4,759	28,743	547
Country	27,208	21,509	4,912	26,421	787
New South Wales ...	56,498	45,493	9,671	55,164	1,334
PER 100,000 OF POPULATION.					
Metropolitan............	7,157	5,860	1,163	7,023	134
Country	3,097	2,448	560	3,008	89
New South Wales ...	4,387	3,533	751	4,284	103

Leaving the committals to be dealt with in the superior court returns, an investigation into the nature of the offences of which the 55,164 persons summarily dealt with in 1896 were accused, shows that there were 3,866 persons charged with offences against the person, 747 with offences against property with violence, 4,792 with offences against property without violence, 33 with forgery and offences against the currency, and 45,726 with other offences, the overwhelming majority of which were of a minor character, consisting chiefly of drunkenness and other offences against good order—such as disorderly conduct and using bad language—and of vagrancy and breaches of various Acts. It is evident, therefore, that the somewhat large number of offenders summarily dealt with is made up principally of persons who cannot justly be included amongst the criminal classes, the total number of offenders against the person and against property, including forgery and offences against the currency, being 9,438 out of a total of 55,164. Appended will be found a classification of the offenders summarily dealt with during each of the past six years, with the proportions per 100,000 of population. As already explained, the figures originally published for the years 1891, 1892, and 1893 referred to offences, and they have, therefore, been reduced to the basis of offenders as in the succeeding years:—

Year.	Against the Person.	Against Property, with violence.	Against Property, without violence.	Forgery and Offences against the Currency.	Good Order, and all other Offences.	Total.
			NUMBER OF OFFENDERS.			
1891	5,515	917	4,622	43	56,433	67,530
1892	6,178	995	5,596	24	56,140	68,933
1893	5,381	1,004	5,127	19	54,926	66,457
1894	4,386	953	5,302	24	49,772	60,437
1895	4,105	799	4,865	15	49,335	59,119
1896	3,866	747	4,792	33	45,726	55,164
			PER 100,000 OF POPULATION.			
1891	482·3	80·2	404·2	3·7	4,934·7	5,905·1
1892	522·9	84·2	473·6	2·0	4,751·7	5,834·4
1893	444·5	82·9	423·5	1·6	4,537·5	5,490·0
1894	354·4	77·0	428·5	1·9	4,022·3	4,884·1
1895	324·6	63·2	384·7	1·2	3,901·0	4,674·7
1896	300·2	58·0	372·1	2·6	3,550·8	4,283·7

It will be seen from the above table that, in spite of the growth of population, there has been a marked diminution in the actual number of offenders during the last six years, the continuity of the fall being broken only in 1892, when the number of people charged with offences against the person and against property was higher than in 1891. When the returns are compared on the basis of population the decline in the proportion of offenders per 100,000 inhabitants is shown to have been remarkably steady, the rate being 5,905·1 in 1891, 5,834·4 in 1892, 5,490 in 1893, 4,884·1 in 1894, 4,674·7 in 1895, and 4,283·7 in 1896. The figures relating to the individual classes of offences are somewhat disturbed by those checks incidental to all progress, but it will be found that the rates for all classes of crimes have fallen in the course of the six years.

The following table gives a classification of the offences for which summary convictions were obtained during 1896. Of every 100,000 males in the colony, 5,658 were summarily convicted; and of every 100,000 females, 1,078 were similarly dealt with. The offences of which the females were found guilty were naturally less serious than those committed by the males. During the year 1896, there were 5,31 persons convicted summarily of offences of a criminal nature, and of these only 450 were women. As the table shows, the number of offences against the person and against property with or without violence was 704 per 100,000 males and 75 per 100,000 females.

Offences.	Summary Convictions.			Per 100,000 of Population.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
Offences against the person..............	1,702	150	1,852	247	25	144
Offences against property, with violence..	375	49	424	54	8	33
Offences against property, without violence	2,784	250	3,034	403	42	236
Forgery and offences against the currency	2	1	3	....	....	....
Offences against good order..............	27,002	5,493	32,495	3,912	919	2,523
Offences not included in the preceding ..	7,187	498	7,685	1,041	83	597
Total	39,052	6,441	45,493	5,657	1,077	3,533

A table affording a comparison between the punishments inflicted on summary conviction in the lower courts during the last ten years would be of great interest, but unfortunately the returns do not permit of its compilation with the necessary degree of accuracy. There is however, sufficiently reliable information to show that, although the proportion of persons sentenced to peremptory imprisonment was somewhat higher in 1894, 1895, and 1896 than in the three preceding years, to a slight extent a tendency has been evinced of late years to punish an offender in other ways than that of consigning him to gaol without the option; while in the case of those persons who were given the option of paying a fine or finding security, or of working their sentence out in gaol, it is also clear that during the last five years, doubtless owing to the scarcity of money, the proportion able to pay the fine has fallen, and the proportion imprisoned in default risen. Below will be found a statement of the punishments inflicted on summary conviction in 1896:—

Offences.	Fines Paid.	Imprisoned in default.	Peremptorily Imprisoned	Bound over.	Other Punishments.	Total.
Offences against the person..............	1,063	424	343	16	6	1,852
Offences against property, with violence..	265	147	5	..	7	424
Offences against property, without violence	728	602	1,560	54	90	3,034
Forgery and offences against the currency	....	......	2	1	....	3
Offences against good order..............	14,083	15,719	1,500	122	1,071	32,495
Offences not included in the preceding	6,287	916	376	5	101	7,685
Total..................	22,426	17,808	3,786	198	1,275	45,493

As shown above, the number of convicted persons sentenced to peremptory imprisonment was 3,786, and adding those incarcerated in default of paying the fine or of finding security, viz., 17,808, the total number imprisoned was 21,594, out of 45,493 summarily convicted by the magistrates, or 47·5 per cent. The number of fines paid was 22,426; but it is probable that some of those who were imprisoned in default of immediately paying the fine imposed were discharged before the term had expired, the amount having been paid in the meanwhile. The total sum received by way of fines during 1896 was £19,313, of which amount £11,027 was paid into the Consolidated Revenue, £5,213 was given to the Police Reward Fund, and £3,073 was paid to the Transit Commissioners, benevolent institutions, municipalities, and informers. The amount of the fines received during each year since 1887 is given below. With the exception of the amounts for the years 1895 and 1896, the sums are exclusive of rewards paid to informers and of fines going to municipalities and other corporate bodies :—

Year.	Amount.	Year.	Amount.
	£		£
1887	23,407	1892	24,450
1888	22,623	1893	21,934
1889	20,432	1894	17,915
1890	20,596	1895	22,011
1891	25,955	1896	19,313

Under the Criminal Law Amendment Act (46 Vic. No. 17), provision has been made for whipping as an additional punishment, chiefly for wanton and unprovoked assault and for indecent exposure. The Bench must consist, in the metropolitan district, of two Stipendiary Magistrates; and in the country districts, of a Stipendiary or Police Magistrate and one or more Justices of the Peace. In no case was whipping added to a sentence of imprisonment passed in a magistrate's court during the year 1896.

The First Offenders' Probation Act of 1894 (57 Vic. No. 23), containing provisions similar to those which have proved of so much value in the treatment of crime in older countries, came into operation on the 1st June. Under this enactment a youthful offender who has been convicted of an offence committed under sudden temptation may be given an opportunity of showing by his future conduct that his aberration was only temporary, and with this object in view the prevention of contamination by gaol associations is provided for. The person whose case is dealt with in this manner by the presiding magistrate or judge is not required to serve the sentence passed upon him, but is liberated on entering into a recognizance, with or without sureties, for his good behaviour during the period over which his sentence extends, the probationary term, however, being not less than one year in every case. Before he is permitted to depart from custody he is examined for future identification, and during the period covered by his sentence he must report himself to the police every three months. If he should fail to do so, or should again lapse into crime, he may be arrested and committed to gaol for that portion of his sentence which is still to run; but should his behaviour be good throughout the whole of the probationary period he is not regarded as having been convicted, and if at any time later on he is arrested for another offence a previous conviction cannot be put in against him. During the year 1896, 69 persons summarily convicted were released under the provisions of the First Offenders' Probation Act, and in the table showing the punishments inflicted these persons have been included under the heading of "Bound Over." In one or two cases an offender so dealt with by the magistrate was unable to find sureties, and in default had to go to prison.

A comparison of the persons convicted in courts of summary jurisdiction during the last six years is afforded by the table given below. For the years 1894, 1895, and 1896 the actual figures are given; for the preceding years an estimate has been formed:—

Year.	Offenders against the person.		Offenders against property.		Other Offenders.	
	Number.	Per 100,000 of Population.	Number.	Per 100,000 of Population.	Number.	Per 100,000 of Population.
1891	2,525	220·8	3,055	267·1	45,186	3,952·3
1892	2,838	240·2	3,668	310·4	44,828	3,794·2
1893	2,558	211·3	3,484	287·8	43,972	3,632·5
1894	2,083	168·3	3,474	280·7	40,653	3,285·3
1895	1,863	147·4	3,417	270·3	41,614	3,291·6
1896	1,852	143·8	3,458	268·5	40,183	3,120·4

The foregoing figures show that during the six years there has been a marked diminution in the number of summary convictions by magistrates, as well as in the rate per 100,000 of population—and that, too, in face of the constant passing of new Acts, breaches of which are punishable by fine, and the growing tendency to dispose of cases in the lower courts. Since the appointment of Stipendiary Magistrates in the Metropolitan district there has been a greater proportion of cases summarily dealt with, while it is also noticeable that the proportion of acquittals and discharges has greatly fallen off. Prior to 1880, it may be said that about 25 per cent. of the persons brought before magistrates were discharged, while in no year shown since 1885 was the proportion more than 16·6 per cent. until 1895, when the figures reached 20·2. In 1896, however, the percentage of acquittals and discharges declined to 17·1. The following table shows the proportion of summary convictions by magistrates, of acquittals and discharges, and of committals to higher courts :—

Year.	Summary Convictions.	Acquittals and Discharges.	Committals to Higher Courts.
	per cent.	per cent.	per cent.
1870	69·0	24·7	6·3
1875	70·1	25·3	4·6
1880	76·9	18·4	4·7
1885	82·9	14·1	3·0
1890	80·4	16·0	3·6
1891	81·6	14·8	3·6
1892	80·3	16·6	3·1
1893	80·4	16·0	3·6
1894	82·9	13·1	4·0
1895	77·4	20·2	2·4
1896	80·5	17·1	2·4

APPREHENSIONS.

It has already been explained that the returns of the police are somewhat overstated, and in order to obtain the actual number of persons apprehended it is necessary to reduce the figures compiled by them. This has therefore been done in the following table, showing the number of persons arrested during each of the last ten years, with the proportion per 100,000 of population. For 1894, 1895, and 1896 the number of arrested persons brought before magistrates has been taken, while for the preceding years the figures have been estimated by a process which leaves little doubt of their close approach to absolute accuracy. It will be seen that the rate per 100,000 inhabitants shows a satisfactory decline during the period, and that it is now only about three-fourths of the proportion in 1887 :—

Year.	Arrests.		Year	Arrests.	
	Number.	Per 100,000 of Population.		Number.	Per 100,000 of Population.
1887	39,111	3,892	1892	40,445	3,423
1888	37,768	3,646	1893	38,562	3,186
1889	34,012	3,189	1894	36,044	2,913
1890	34,210	3,105	1895	36,939	2,920
1891	40,012	3,499	1896	36,642	2,845

AGES OF OFFENDERS.

The ages of persons arrested for various classes of offences during the ear 1896 are given below. The returns of the police have been proortionately reduced to the basis of the number of arrested persons rought before magistrates in the course of the year. It will be seen hat the most serious offences were charged against persons between the ges of 25 and 30, and that it was this age-group which yielded the argest proportion of offenders of all kinds:—

Offences.	Ages.										Total Apprehensions.
	Under 10.	10 and under 15.	15 and under 20.	20 and under 25.	25 and under 30.	30 and under 35.	35 and under 40.	40 and under 45.	45 and under 50.	50 and upwards.	
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
gainst the person	1	20	120	307	593	342	258	195	112	164	2,112
gainst property, with violence	4	16	57	81	151	94	58	39	27	50	577
gainst property, without violence	33	308	564	513	1,182	641	498	343	190	342	4,614
orgery and offences against the currency	..	..	12	9	20	9	14	14	4	5	87
gainst good order, including drunkenness	5	47	946	2,514	5,364	4,477	4,056	3,427	2,593	4,899	28,328
ot included in the preceding	38	126	105	125	225	96	85	47	33	44	924
Total	81	517	1,804	3,549	7,535	5,659	4,969	4,065	2,959	5,504	36,642

The proportion of offences committed at different ages varies very ttle from year to year. In the following table this proportion is nown for the year 1896:—

Ages.	Persons Apprehended.			Per 100,000 of mean population of each age group.		
	Males.	Females.	Total.	Males.	Females.	Total.
	No.	No.	No.	No.	No.	No.
nder 10 years	63	18	81	35	10	23
years and under 15	466	51	517	650	72	368
,, 20	1,508	296	1,804	2,417	472	1,539
,, 25	2,695	854	3,549	4,113	1,387	2,801
,, 30	6,313	1,222	7,535	9,445	2,263	6,201
,, 35	4,681	978	5,659	8,137	2,320	5,603
,, 40	4,137	832	4,969	9,260	2,652	6,455
,, 45	3,461	604	4,065	10,123	2,372	6,658
,, 50	2,531	428	2,959	8,538	1,999	5,691
years and upwards	4,838	666	5,504	6,413	1,285	4,239
Total	30,693	5,949	36,642	4,447	995	2,845

BIRTHPLACES OF OFFENDERS.

At the census of 1891 the persons born in New South Wales formed 65 per cent. of the total population; while of the 36,642 males and females arrested during the year 1896, only 13,611, or 37·1 per cent., were born in the colony. These figures are not, however, to be taken by themselves as proving the law-abiding character of the native-born as compared with the remainder of the community, as the bulk of the people under 20 years of age are by birth Australian, while males largely predominate over females among the British and foreign-born residents within the colony. With the steady increase in the number of those born within the boundaries of New South Wales, there has naturally been a corresponding increase in the proportion contributed by them to the total number of apprehensions, the figures in 1896 being 37·2 per cent. as against 30·1 per cent. in 1887; and, similarly, the proportion of arrests of persons born in other parts of Australasia has risen in this colony from 6·2 per cent. to 10·9 per cent. in the same period; while a decline in the proportion of persons of other than Australian birth resident in New South Wales has been accompanied by a decrease in the proportion of apprehensions contributed by them, the figures falling from 63·7 per cent. to 51·9 per cent. during the past decade.

But little can be gained by a comparison of offences with the number of persons of each nationality, as the bulk of the offences are committed by the adults, who comprise only one half of the native-born as against over 90 per cent. of the residents of certain other nationalities. Taking only the male offenders committed to gaol, and comparing them with the male population, the most law-abiding portion of the community are the much-abused Chinese, who show 911 convictions per 100,000. Next come the South Australians, with 1,429 per 100,000; then the English, with 1,683; the Germans, with 1,778; the Italians, with 1,802; the Russians, with 1,878; the native-born inhabitants of New South Wales, with 1,898; the Scotch, with 2,119; the Victorians, with 2,489; the Tasmanians, with 2,493; the Irish, with 2,579; the Danes, with 3,024; the Western Australians, with 3,191; the New Zealanders, with 3,341; the French, with 4,214; the Swedes and Norwegians, with 5,884; the Queenslanders, with 5,893; and the natives of the United States, with 6,626. Even these figures, though deduced from proper data, require some explanation. The offenders belonging to the United States and to Scandinavia are for the most part sailors, whose offences should not be charged against the general population; some of the French are recidivistes from New Caledonia; and, indeed, it may be said that the offences do not arise from the nationality of the offender, but from his ignorance, his poverty, or his environment. In connection with this subject, it may be remarked that natives of countries which show a low average of comparative criminality exhibit in the colony a rate of apparent lawlessness difficult to understand except on the supposition that a freer life and a larger remuneration have awakened dormant tendencies which otherwise would not have developed.

The native countries of all persons arrested in 1896 will be found in the following table :—

Birthplaces.	Offences.						Total Apprehensions.
	Against the person.	Against property, with violence.	Against property, without violence.	Forgery and offences against the currency.	Against good order.	Not included in the preceding.	
	No.	No.	No.	No.	No.	No.	No.
New South Wales	967	267	2,268	28	9,681	400	13,611
Victoria	153	37	319	13	1,515	33	2,070
Queensland	29	15	117	2	278	7	448
South Australia	27	7	62	....	369	16	481
Other Australasian Colonies	56	19	142	1	762	19	999
England	301	81	726	19	5,384	156	6,667
Scotland	89	26	181	6	2,140	52	2,494
Ireland	254	75	378	6	5,970	85	6,768
Other British possessions	39	10	68	2	361	16	496
France	16	3	42	3	150	14	228
Germany	37	6	76	1	315	20	455
China	21	5	43	....	145	14	228
Other Foreign Countries	123	26	192	6	1,258	92	1,697
Total	2,112	577	4,614	87	28,328	924	36,642

RELIGION OF OFFENDERS.

The nominal religious profession of each person arrested is ascertained and entered in the charge-sheet. During 1896 the arrests of persons belonging to each of the various denominations were :—

Religions.	Offences.						Total. Apprehensions.
	Against the person.	Against property, with violence.	Against property, without violence.	Forgery and offences against the currency.	Against good order.	Not included in the preceding.	
	No.	No.	No.	No.	No.	No.	No.
Church of England	822	187	2,019	49	9,979	378	13,434
Roman Catholic	943	295	1,904	26	13,453	337	16,958
Presbyterian	142	33	334	10	2,645	66	3,230
Wesleyan	50	23	182	....	511	35	801
Congregational	8	1	19	....	66	5	99
Baptist	7	2	18	....	63	5	95
Lutheran	44	8	47	....	559	55	713
Salvation Army	3	....	15	....	18	2	38
Unitarian	....	....	....	1	4	....	5
Other Christian Denominations	7	3	5	....	79	3	97
Hebrew	5	3	53	....	72	4	137
Mahommedan	11	1	7	....	26	7	52
All others	70	21	11	1	853	27	983
Total	2,112	577	4,614	87	28,328	924	36,642

It is found that no great reliance can be placed on the statements of many of the persons who are arrested as to the religious belief which they nominally profess, as in some instances offenders are found to have returned themselves as of three or more different religions in the course of a year; but allowing for all such persons the foregoing may be taken as a fair statement of the creeds adopted by offenders. The table shows a large excess of Roman Catholic offenders; this denomination numbers about 25·5 per cent. of the population, while the proportion of persons so returning themselves was 46·3 per cent. of the total offenders—a condition of things which has obtained for many years, and which has in all probability been due to the lower social condition of the members of the Roman Catholic community.

Education of Offenders.

The degree of education of those who were arrested has also been obtained as far as possible. Four grades of education were formerly adopted for classification purposes, but in consequence of the difficulty of defining the term "Superior Education" that classification has been abandoned, and as the amount of education possessed by persons who are said to be able to read only must be very slight, the distinction between this class and the completely illiterate has not been attempted. The educational status of persons arrested during 1896 is shown below:—

Offences.	Degree of Education.						Total Apprehensions.
	Illiterate.			Read and Write.			
	Males.	Females	Total.	Males.	Females.	Total.	
	No.	No.	No.	No.	No.	No.	No.
Against the person	134	9	143	1,813	156	1,969	2,11
Against property, with violence	35	1	36	483	58	541	577
Against property, without violence	306	33	339	3,875	400	4,275	4,614
Forgery and offences against the currency	...	...	...	80	7	87	8
Against good order, including drunkenness	1,270	252	1,522	21,806	5,000	26,806	28,3
Not included in the preceding	81	5	86	810	28	838	92
Total	1,826	300	2,126	28,867	5,649	34,516	36,6

The proportion of persons of 20 years and upwards in the commun who are able to read and write is estimated to be about 91·2 per cen while in 1896 the proportion of persons arrested who were so far educat was 94·2 per cent. From these figures a hasty conclusion might be drawn that the progress of education has not been attended with that decrease in crime which its friends confidently expected to follow in its train. But it must always be remembered that although the proportion of persons arrested who can read and write has much increased of late years, such increase is merely a proof of the spread of education, even amongst those whose environment offers inducements to the commission of crime.

The best proof of the effect of the spread of education on crime is the notable decrease which has for many years been observable in the number of committals and convictions for serious offences. Although the direct effect of the spread of enlightenment cannot be gauged by figures, there is ample evidence to warrant the assumption that education is doing its work as an active leaven for good throughout the community.

DRUNKENNESS.

During 1896 the arrests for drunkenness, with and without disorderly conduct, numbered 18,883, or 51·5 per cent. of the total number of arrests, as compared with 17,717 arrests, and a proportion of 47·9 per cent., for the previous year. There were also 616 persons proceeded against by summons for this offence, as against 662 in 1895. The total number of cases of drunkenness dealt with by the police was, therefore, 19,499, as compared with 18,379 in the previous year. The total number of cases was higher than in 1894, as well as in 1895; but the excess of 1896 was slight, and may be attributable more to greater stringency on the part of the police in the enforcement of the law than to any actual increase of intemperance. That this is a probable view of the case may be assumed from the fact that there has not been a commensurate increase in the amount of intoxicants consumed, as will be seen from the table on page 771. The following table shows the number of arrests and summons cases for drunkenness in the metropolitan and extra-metropolitan districts:—

Cases of Drunkenness.	Metropolitan District.	Extra-Metropolitan District.	Total.
	No.	No.	No.
Apprehensions ……	12,392	6,491	18,883
Summons Cases ……	211	405	616
Total…………	12,603	6,896	19,499

Below will be found a statement showing the number of males and females apprehended and summoned in each police district for drunkenness during the year 1896:—

District.	Apprehended.			Summoned.			Total.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
Metropolitan ...	8,039	3,133	11,172	152	44	196	8,191	3,177	11,368
Eastern..........	679	71	750	130	4	134	809	75	884
North-eastern ..	1,006	84	1,090	127	3	130	1,133	87	1,220
Northern	612	38	650	15	1	16	627	39	666
North-western ..	1,072	46	1,118	5	3	8	1,077	49	1,126
Bourke	376	11	387	....	....	....	376	11	387
Western	977	65	1,042	50	....	50	1,027	65	1,092
South-western ..	1,305	62	1,367	6	....	6	1,311	62	1,373
The Murray	762	21	783	38	....	38	800	21	821
Southern	483	41	524	37	1	38	520	42	562
Total	15,311	3,572	18,883	560	56	616	15,871	3,628	19,499

Persons arrested for drunkenness are chiefly residents of large towns, and it is only natural to expect that with an increase in the population of the towns there should be an increase in the apprehensions for drunkenness. A comparison of the arrests during each year since 1887 is given in the following table, and it is satisfactory to note that the decrease is not only in proportion to the population, but in the actual number. As hinted at on the previous page, however, much stress could not be laid upon the falling off in arrests if there were not other evidence of the decrease of drunkenness, as a word of instruction from the Inspector-General of Police could, according to its tenor, increase or decrease the number of persons apprehended on this charge; but the decline in arrests has been coincident with a marked decrease in the consumption of intoxicants, so that it may be fairly assumed that drunkenness is on the wane:—

Year.	Apprehensions for Drunkenness.			Summons Cases for Drunkenness.	Total Cases of Drunkenness.	Cases of Drunkenness per 100,000 of Population.
	Males.	Females.	Total.			
1887	16,275	3,338	19,613	1,331	20,944	2,084
1888	14,759	3,544	18,303	1,110	19,413	1,874
1889	12,600	3,330	15,930	914	16,844	1,579
1890	13,233	2,890	16,123	896	17,019	1,544
1891	15,638	3,454	19,092	1,013	20,105	1,758
1892	14,638	3,234	17,872	1,058	18,930	1,602
1893	13,694	3,397	17,091	718	17,809	1,471
1894	13,465	3,468	16,933	576	17,509	1,415
1895	14,108	3,609	17,717	662	18,379	1,453
1896	15,311	3,572	18,883	616	19,499	1,514

NOTE.—This Table has been amended since last issue.

The number of convictions obtained for drunkenness, with and without disorderly conduct, during the year 1896, was 19,385. In

5,813 of these cases, or 30·0 per cent., the offence was committed between 8 a.m. on Saturday and 8 a.m. on Sunday; and in other 1,410 cases, or 7·3 per cent. of the total, the offence was committed between 8 a.m. on Sunday and 8 a.m. on Monday. The number of convictions obtained for breaches of the Licensing Act during the year will be found below. It will be borne in mind that hotels are required by law to be closed on Sunday, although the licensees are allowed to sell to lodgers and *bona fide* travellers. As the arrests on Sunday show, the law is not greatly respected :—

Convictions for Selling—	Metropolis.	Country.	New South Wales.
Liquor on Sunday, and keeping premises open upon that day ...	118	86	204
During prohibited hours other than upon Sunday	25	56	81
Liquor without a license	12	37	49
Adulterated liquor	1	...	1
Total convictions obtained ...	156	179	335

On pages 805 and 806 are given the number of public-houses licensed in the colony, and the number of Colonial wine licenses current during the last few years.

The average consumption per inhabitant of spirits, wines, and fermented liquors since 1887 is given in the following table; also the total quantity of all classes of intoxicants consumed, expressed in terms of proof spirit. It will be seen that the consumption of intoxicants per inhabitant has declined during the period covered by the table, the quantity in 1896 being nearly 30 per cent. less than in the first year shown :—

Year.	Spirits.	Wines.	Beer.	Equivalent in Alcohol (proof).
	galls.	galls.	galls.	galls.
1887	1·11	0·73	11·69	2·97
1888	1·10	0·76	11·01	2·88
1889	1·07	0·83	10·89	2·73
1890	1·09	0·73	10·63	2·68
1891	1·11	0·84	11·42	2·83
1892	1·00	0·86	10·91	2·67
1893	0·83	0·84	9·23	2·30
1894	0·77	0·79	8·97	2·17
1895	0·73	0·64	8·96	2·08
1896	0·73	0·61	9·14	2·10

If the number of persons who render themselves liable to arrest may be fairly assumed to be in direct proportion to the amount of intoxicants consumed, a decrease in consumption is necessarily a sign of increased sobriety.

The question of the relative prevalence of drunkenness, as tested by the number of persons arrested for that offence in the different colonies, has received no little attention, and it has been made to appear that New South Wales in this regard holds a bad pre-eminence. The total cases of drunkenness and the number per 100,000 of population in the different colonies, for the year 1896, were as given below :—

Colony.	No of cases of drunkenness.	Per 100,000 of population.
New South Wales	19,499	1,514
Victoria	10,060	854
Queensland	6,105	1,309
South Australia	1,937	544
Western Australia	3,491	2,919
Tasmania	658	402
New Zealand	4,916	696

During 1896 the cases of drunkenness in New South Wales exhibited an increase on those of the previous year, which reached a total of 18,379. In all the other colonies, with the exception of Victoria, there was likewise an increase, not only in the actual number of cases, but also in comparison with the populatoin. In comparing the drunkenness returns of the various colonies, it may be pointed out that an argument founded solely on the number of cases of drunkenness is misleading, for a great deal depends upon the state of the law and the manner in which it is administered. The extent of the area supervised must also be taken into consideration, for it is evident that the law will be less strictly enforced in the sparsely settled districts of Queensland, South Australia, and Western Australia, than in the more thickly populated parts of Australia. The quantity of intoxicants consumed per head of the community is, perhaps, a better guide, though not always a safe indication, unless the manners and customs of the people are also considered ; but where the habits of communities are so similar as is the case in regard to the Australasian colonies, the consumption per head is a tolerably fair test. The figures for the year 1896 given in the chapter on "Food Supply" may be taken as correct, with some slight hesitation as regards those relating to the consumption of beer in the colonies where no excise duty was enforced, viz., in Queensland and Western Australia. As the table stands, the average consumption of alcohol of proof strength per inhabitant is shown to be 2·10 gallons in New South Wales; 2·62 in Victoria ; 2·69 in Queensland ; 2·18 in South Australia ; 5·44 in Western Australia ; 1·34 in Tasmania ; and 1·60 gallons in New Zealand ; the average for Australasia being 2·29 gallons. The amount of alcohol consumed is greatest in Western Australia and Queensland, while in New South Wales it is somewhat below the average for Australasia

In regard to Western Australia, in dealing with the consumption of intoxicants the circumstance that the males largely exceed the females must not be neglected. If a comparison were made as to the consumption per head, excluding females, the case against Western Australia would be very materially altered. The figures given, however, at once dispose of the theory so persistently put forward as to the excessive prevalence of drunkenness in New South Wales, and the more effectually when it is borne in mind that the number of males engaged in manual labour is far larger here than in most of the colonies with a more favourable record.

There is one notable fact worth recording in connection with this subject. Out of 18,883 arrests for drunkenness in New South Wales in 1896, there were only 5,766 persons born in the colony as compared with 13,117 persons born outside its boundaries. The arrests for drunkenness amongst the native-born were only in the ratio of 1 in 46 of the adult population, as compared with 1 in 29 of the rest of the adult community. It may, therefore, be considered as well established that the Australian native is not given over to the vice of drunkenness.

INQUESTS.

In all cases of violent or unnatural death, death resulting from accident, sudden death, death in a gaol, a lockup, or a hospital; suicide, or death resulting from execution, it is the duty of the Coroner for the district to hold an inquiry into the cause if he has reasonable grounds for believing that death was due to violence or other unnatural means, and for that purpose he is empowered to order the exhumation of a body if necessary, to summon jurors and witnesses, and to commit for trial a person found guilty by the jury of the crime of manslaughter or murder. Every death which takes place in gaol must be investigated. In a district where no coroner has been appointed, or the officer is unable to hold the usual inquest, a magistrate may hold an inquiry; but owing to the fact that he is not empowered to commit a suspected person for trial, he must terminate the inquiry in all cases where facts are disclosed which point to the criminality of a person, and direct the police to prosecute at the nearest police court. The numbers of deaths during 1896, the causes of which were investigated by Coroners or Magistrates, were 1,036 of males and 241 of females, giving a total of 1,277 inquests and magisterial inquiries. The finding of the courts in 340 cases was that death was due to disease, and in 800 cases to violence, while the cause of death in 137 cases was not clearly defined.

It is provided by Act 24 Vic. No. 10 that when any real or personal property has been destroyed or damaged by fire, the Coroner exercising jurisdiction in the district where the outbreak has occurred shall, if he consider the case to be a fit one for investigation, hold an inquiry with the object of ascertaining the origin of the fire. The procedure is similar to that followed in inquests held in connection with cases of death. The Coroner can, in accordance with the decision of his jury, commit a person for trial on a charge of arson. There are a Coroner and a Deputy-

Coroner for Sydney, and 133 Coroners for the country districts, as well as one for the colony generally. Inquiries were held during 1896 into the origin of 120 fires, and the verdict returned was one of accident in 5 cases, of arson in 24, of insufficient evidence in 90 cases, while in one case no verdict was returned.

SUPERIOR COURTS.—CRIMINAL JURISDICTION.

A Judge of the Supreme Court presides over the Central Criminal Court of Gaol Delivery held at Sydney. All prisoners are tried by a jury of twelve, chosen by lot from the panel provided by the Sheriff. In capital cases the right to challenge, both by the Crown and by the accused, is limited, except for cause shown, to twenty jurors; and in cases other than those in which the sentence of death may be imposed, whether felonies or misdemeanours, the number challenged cannot exceed eight. Under Act 55 Vic. No. 5, which was assented to in December, 1891, a person accused of an indictable offence is privileged, but not compelled, to give evidence in his own behalf. Prior to the passing of this Act such a privilege was only granted to those charged with bigamy. At the close of the case for the prosecution an accused person may also make a statement in his defence without rendering himself liable to examination thereupon, either by counsel for the Crown or by the Court. The verdict of the jury must be unanimous, for even if eleven jurors were agreed their verdict could not be accepted. If the jury disagree in the first instance they may be locked up until they either come to a verdict or are discharged by the Court. If no verdict is returned the prisoner is liable to be tried again by another jury.

In addition to the supreme, civil, and criminal sittings of the Court held in Sydney, the Judges go on circuit once in each half-year, and hold Courts of Gaol Delivery, called Circuit Courts, for dealing with the more serious class of criminal cases, especially those in which the capital penalty is involved, and for hearing civil causes at certain circuit towns, viz.:—In the north, at Maitland, Tamworth, Armidale, and Grafton; in the west, at Mudgee, Bathurst, Dubbo, and Broken Hill; and in the south, at Goulburn, Yass, Wagga Wagga, Albury, Deniliquin, Young, and Hay.

The Courts of Quarter Sessions are presided over by Chairmen, who also perform the duties of Judges of the District Courts. There are seven Chairmen of Quarter Sessions; two of these preside over the Courts in the Metropolitan and Suburban and Hunter Districts, and one each in the following districts:—Southern, south-western, northern, north-western, and western. All offences except those involving the capital penalty are within the jurisdiction of the Court. On the trial of prisoners at Quarter Sessions, the Chairman, at the request of the prisoner's counsel, must reserve questions of law for the consideration of the Supreme Court, or he may so act *motu proprio*.

During the year 1896 there were 1,274 males and 94 females committed for trial in the Superior Courts of the colony. Of these 1,368 persons, 1,334 were committed by magistrates, before whom they had been brought up at Petty Sessions; 32 by coroners, 16 being accused of murder, 10 of manslaughter, and 6 of arson. There were also 2 persons committed for perjury by Judges of the District Court. The number of persons committed during any one year does not necessarily coincide with the number placed on trial during the same period, as some persons committed at the end of one year do not make their appearance until the following year. Excluding those against whom the Attorney-General filed no bill, there were 1,368 persons recorded in the returns of the Superior Courts of the colony during 1896, 1,274 being males and 94 females. The following table shows the manner in which these accused persons were dealt with :—

How dealt with.	Central Criminal and Circuit Courts.		Courts of Quarter Sessions.		All Superior Courts.	
	Males.	Females.	Males.	Females.	Males.	Females.
Convicted—						
Sent to Gaol	151	8	660	36	811	44
Liberated under First Offenders' Act	11	1	10	2	21	3
Acquitted	90	11	292	32	382	43
Jury disagreed	5	...	...	...	5	...
Remanded	...	1	17	...	17	1
Bound over	...	...	1	...	1	...
Not proceeded against	2	...	35	3	37	3
Total persons	259	21	1,015	73	1,274	94

Classifying these accused persons according to the nature of the offences with which they were charged, it will be found that, both in the case of males and of females, offences against property without violence are the most numerous, followed by offences against the person and offences against property with violence, the latter, however, with respect to males only. Forgery and offences against the currency furnish the next highest rate of males; the number of female offenders being but 4 as against 84 male offenders. Below will be found a statement of the offences of which the 1,368 persons dealt with in superior courts during 1896 were accused, with the rates per 100,000 of population :—

Offences.	Males.		Females.		Persons.	
	Number	Per 100,000 of population.	Number	Per 100,000 of population.	Number	Per 100,000 of population.
Offences against the person	305	44·2	27	4·5	332	25·8
Offences against property with violence	193	28·0	..	..	193	15·0
Offences against property without violence	569	82·4	50	8·4	619	48·0
Forgery and offences against the currency	84	12·2	4	0·7	88	6·8
Offences against good order	42	6·1	4	0·7	46	3·6
Offences not included in preceding	81	11·7	9	1·5	90	7·0
Total	1,274	184·6	94	15·8	1,368	106·2

The following statement shows the character of the principal offences for which prisoners were tried during each year since 1887, and affords material for interesting study. Cases which from various causes were not proceeded with are included under the heading of "Other Offences" in the table; while since 1892 the returns have allowed of the exclusion of those persons against whom the Attorney-General found no bill :—

Offences.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.
Murder	11	22	13	9	17	7	15	18	10	12
Attempted murder	7	9	9	8	7	6	7	4	4	3
Manslaughter	7	22	16	25	25	19	58	16	31	13
Wounding maliciously, unlawfully.	86	109	65	118	116	111	121	119	99	100
Rape, and attempts to commit	7	16	12	14	21	18	14	14	17	19
Assaults on children	32	28	27	24	16	26	18	8	36	36
Indecent assaults	26	28	23	35	43	48	40	30	20	21
Unnatural offences	18	13	10	35	20	29	15	12	6	12
Arson	10	15	23	21	22	21	17	33	27	22
Robbery with violence, including garrotting.	60	47	79	47	39	40	50	50	71	30
Larceny and receiving stolen property.	225	186	267	237	263	261	223	279	205	200
Stealing in a dwelling, including burglary.	115	178	166	91	84	154	78	85	73	[illegible]
Forgery and uttering	95	114	109	87	89	147	79	81	63	62
Stealing from the person	44	54	70	56	61	44	37	50	28	28
Obtaining money, etc., under false pretences.	96	70	87	94	73	57	52	48	46	45
Embezzlement	38	47	38	25	60	48	24	22	27	57
Horse-stealing	76	70	71	74	50	40	63	54	50	54
Cattle-stealing	26	22	25	26	35	19	15	17	22	21
Sheep-stealing	18	19	20	19	4	14	28	16	40	35
Perjury	7	21	15	9	14	46	31	3	23	18
Other offences	498	457	430	500	516	434	351	378	429	482
Total Committals	1,502	1,547	1,575	1,554	1,575	1,580	1,336	1,342	1,340	[illegible]

NOTE.—This table has been amended since last issue.

The scope of this work does not admit of the particulars of offences being set out in great detail, but if the returns be analysed it will be found that, as experience has shown elsewhere, the seasons have a marked effect upon conduct; besides this, however, there is apparently a periodicity in crimes sufficiently curious to afford food for speculation. Perhaps the strongest examples of this periodicity are in connection with crimes of blood, *i.e.*, those of murder, manslaughter, and maliciously wounding; and with crimes against females, and unnatural offences.

GAOLS.

There are in New South Wales 59 gaols of all kinds; of these are principal gaols, 15 minor gaols, and 36 police gaols. There is accommodation for 1,849 prisoners in separate cells, and for when more than one prisoner sleeps in a cell, exclusive of the accommodation afforded by 22 separate cells in the lunatic ward of Parramatta

Gaol, and of that for 108 prisoners in the "associated huts" at Trial Bay Prison. On the 31st December, 1896, there were 2,354 prisoners, exclusive of debtors, in confinement, thus distributed :—

Prisons.	Prisoners.	Accommodation—one prisoner per cell.	Accommodation—more than one prisoner per cell.
Principal gaols	1,855	1,373	3,727
Minor gaols	338	269	943
Police gaols	161	207	733
Total	2,354	1,849	5,403

The total number of prisoners received under sentence into the various gaols throughout the colony during the year 1896 was 14,285, exclusive of debtors. Of these, 7,083 were received at Darlinghurst Gaol, and 2,577 at Biloela Gaol, Sydney. The following table gives the number of prisoners received into gaol under sentence for the last ten years :—

Year.	Males.	Females.	Total.
1887	11,554	3,728	15,282
1888	10,519	3,712	14,231
1889	9,299	3,583	12,882
1890	9,203	3,084	12,287
1891	9,553	3,257	12,810
1892	10,677	3,106	13,783
1893	10,704	3,149	13,853
1894	10,436	3,100	13,536
1895	10,472	3,130	13,602
1896	11,224	3,061	14,285

It may with confidence be asserted that the number of persons received into gaols, as compared with population, is greatly decreasing; indeed, the actual number was less in 1896 than ten years previously.

The average number of persons in confinement during the year has not been ascertained, but the number in detention at the close of each year is known, and the figures for ten years will be found in the following statement. Taking one year with another, these figures may be accepted as fairly representing the average daily number for each year given. Prisoners have been classified under two heads—those under sentence, and those awaiting trial. Debtors are excluded, except in 1887, returns for which year do not allow of the distinction being made :

Year.	In confinement.			Under sentence.	Awaiting trial.
	Males.	Females.	Total.		
1887	2,053	327	2,380	2,235	145
1888	2,035	309	2,344	2,223	121
1889	2,036	322	2,358	2,233	125
1890	2,138	281	2,419	2,290	129
1891	2,325	291	2,616	2,489	127
1892	2,345	268	2,613	2,484	129
1893	2,232	208	2,440	2,295	145
1894	2,350	252	2,602	2,469	133
1895	2,257	240	2,497	2,345	152
1896	2,137	217	2,354	2,216	138

As in the case of the arrests, the largest number of prisoner any age-period is of those whose ages range from 25 to 30 years, w proportionately to the population this age-group is also most produ of criminals, with 2,799 per 100,000 inhabitants; followed by 35 t years, with 2,602; 40 to 45 years, with 2,512; and 30 to 35 years, 2,407 per 100,000 of population. The following table gives the nur and ages of persons sentenced to penal servitude, labour, or impri ment during the year 1896. Three of the prisoners sentenced to de including 2 males and 1 female, had the sentence commuted :—

Ages.	To Death.		To Penal Servitude.		To Imprisonment.						Total Prison Sentenced.	
					With Labour.			Without Labour.				
	Males.	Females.	Males.	Females.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.
7 and under 15	..	..	..	..	8	..	8	45	..	45	53	..
15 ,, 20	2	..	6	1	281	51	332	425	76	501	714	128
20 ,, 25	..	..	12	..	448	135	583	517	261	778	977	396
25 ,, 30	..	..	38	..	1,274	199	1,473	1,377	395	1,772	2,689	594
30 ,, 35	..	..	23	..	684	166	850	1,041	414	1,455	1,748	580
35 ,, 40	..	..	19	3	535	125	660	909	329	1,238	1,463	457
40 ,, 45	1	1	12	..	361	95	456	736	248	984	1,110	344
45 ,, 50	..	..	2	..	276	68	344	564	186	750	842	254
50 ,, 55	..	..	4	..	190	43	233	391	112	503	585	155
55 ,, 60	..	..	2	..	110	17	127	268	31	299	380	48
60 and over	..	..	7	..	230	17	247	426	88	514	663	105
Total	3	1	125	4	4,397	916	5,313	6,699	2,140	8,839	11,224	3,061

Taking the returns from all the gaols, it will be found that 9,724 d tinct persons were convicted during the year 1896, of whom 8,436 w males, and 1,288 were females. The following table shows, in groups, the number of distinct persons of the male sex who were convicted once and more than once during 1896, any convictions they may have undergone in previous years being disregarded. In the figures given the returns from all the gaols have been combined, and each person debited with the total number of sentences received, whether served in one prison or in more than one.

Ages.	Males Convicted during 1896, with Ages and Number of Times Convicted.															
	1	2	3	4	5	6	7	8	9	10	11	13	6	18	26	Total.
3 and under 4	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
5 ,, 6	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
8 ,, 9	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
9 ,, 10	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6
10 ,, 11	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8
11 ,, 12	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4
12 ,, 13	11	..	..	..	..	..	..	..	..	..	..	..	..	..	..	11
13 ,, 14	15	..	1	..	..	..	..	..	..	..	..	..	..	..	..	16
14 ,, 15	20	1	..	..	..	..	..	..	..	..	..	..	..	..	..	21
15 ,, 16	44	1	..	..	..	1	..	..	..	..	..	..	..	..	..	46
16 ,, 17	62	12	2	1	..	..	..	..	..	..	..	..	..	..	..	77
17 ,, 18	93	12	10	4	1	..	..	..	..	..	..	..	..	..	..	120
18 ,, 19	132	19	4	2	..	1	..	..	..	..	..	..	..	..	..	158
19 ,, 20	140	20	7	3	1	..	..	..	..	..	..	..	..	..	..	171
20 ,, 21	114	23	3	..	..	1	..	..	..	..	..	..	..	..	..	141
21 ,, 25	527	82	24	6	1	..	..	1	1	..	..	..	..	..	..	642
25 ,, 30	1,530	325	90	29	11	4	..	1	..	1	1	1	..	..	..	1,993
30 ,, 35	1,010	188	50	19	13	2	4	..	2	..	1	..	1	..	..	1,290
35 ,, 40	880	151	35	14	8	4	6	..	..	1	2	..	..	..	..	1,101
40 ,, 45	675	104	31	17	5	4	1	1	..	..	..	1	..	..	..	839
45 ,, 50	461	88	19	7	7	2	3	..	..	1	..	1	..	1	1	591
50 ,, 55	336	53	18	9	2	4	1	2	..	..	1	..	..	..	..	426
55 ,, 60	228	31	14	7	1	..	..	..	..	..	1	..	1	..	..	283
60 ,, 65	186	41	2	1	1	2	..	..	..	..	..	..	..	..	..	233
65 ,, 70	110	18	10	5	2	2	1	1	..	..	..	..	..	..	..	149
70 ,, 75	58	7	1	..	..	..	..	..	..	..	..	..	..	..	..	66
75 ,, 80	27	2	1	1	1	1	..	..	..	..	..	..	1	..	..	34
80 and upwards	5	1	1	..	..	..	..	..	..	..	..	..	..	..	..	7
Total	6,685	1,179	323	125	54	28	16	6	3	3	6	3	3	1	1	8,436

These figures disclose some interesting facts. It is sad to see that the large number of 115 boys of 15 years and less had to be sent to gaol; but it is well known that the problem of dealing with juvenile offenders is one of the most serious and embarrassing that the magistrates have to cope with, especially as, until the month of August of the year 1895, there was no Reformatory in the colony to which boys of the criminal class could be sent. In the absence of such an institution, the magistrates, unwilling to subject boys of tender age to the contaminating influences of a gaol, generally ignored the criminal charges and sent them to the nautical school-ship Sobraon as deserted or neglected children. This, though the lesser of two evils, was manifestly unfair to the class of children for whom the Sobraon was primarily intended, and largely increased the difficulties of its management. Some few years ago extensive buildings were erected at Rookwood for the accommodation of criminal boys, but they were put to other uses. The

Carpenterian Reformatory has now been established for boys who have been convicted of criminal offences. Particulars of the Institution are given under Education and Social Condition and Charities.

A remarkable feature of the foregoing table is the large number of persons sent to gaol more than once during the year. The prisoners with two or more convictions numbered 1,751, while their convictions were 4,679. The list of second convictions commences with a boy of 14 years and ends with a man who had passed his eightieth year; the third convictions are headed by a lad of 13, and so on, as the list shows. One man, whose age was between 45 and 50 years, was convicted no less than 26 times, and 18 convictions were recorded against another prisoner in the same age-group during the year. The number of males under 21 years of age sent to gaol was 782, and of these 130 were convicted more than once.

There were 1,288 females imprisoned during the year 1896, of whom the large proportion of 539, or 41·8 per cent., were convicted more than once. The convictions of girls under 21 years of age numbered 108, and of these 42 were imprisoned more than once. One woman was convicted as many as 30 times during the year, one had 25 convictions recorded against her, another was convicted 24 times, and two were convicted 20 times during the year. The following table shows the number of females imprisoned, their ages, and number of convictions during the year:—

Ages.	Females Convicted during 1896, with Ages and Number of Times Convicted.																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	20	24	25	30	Total.
5 and under 6	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	[illegible]
7 ,, 8	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
8 ,, 9	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
10 ,, 11	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	[illegible]
11 ,, 12	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	[illegible]
12 ,, 13	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
13 ,, 14	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	[illegible]
14 ,, 15	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
15 ,, 16	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	[illegible]
16 ,, 17	5	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8
17 ,, 18	9	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12
18 ,, 19	12	8	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	23
19 ,, 20	10	8	5	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	26
20 ,, 21	14	4	4	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	23
21 ,, 25	104	25	13	9	2	4	1	1	1	..	..	1	..	..	1	..	..	1	..	1	..	164
25 ,, 30	123	33	23	10	7	1	5	4	7	1	..	3	1	..	..	1	2	..	1	..	..	222
30 ,, 35	115	35	21	9	9	7	4	3	4	2	4	2	..	1	..	..	..	1	..	..	..	217
35 ,, 40	107	31	17	8	2	7	3	6	1	..	2	..	1	1	1	..	1	..	..	..	..	[illegible]
40 ,, 45	91	20	12	8	7	3	..	3	2	2	1	1	1	..	..	..	..	..	..	..	..	[illegible]
45 ,, 50	54	13	9	8	5	..	..	2	3	..	1	1	1	1	..	..	..	..	..	..	..	[illegible]
50 ,, 55	43	12	4	..	..	3	2	1	..	..	..	..	2	1	..	..	..	..	..	..	..	[illegible]
55 ,, 60	16	7	4	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	[illegible]
60 ,, 65	17	3	2	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	[illegible]
65 ,, 70	6	..	1	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	[illegible]
70 ,, 75	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4
75 ,, 80	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	[illegible]
80 and upwards	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	[illegible]
Total ..	749	203	119	57	34	29	16	20	18	6	8	8	6	4	2	1	3	2	1	1	1	1,28

The Shaftesbury Reformatory, situated near the south head of Port Jackson, was established for the reception of girls under 16 years of age who had fallen into crime, and at the end of 1896 there were 15 children in the institution for reformatory purposes.

The persons who figure in the two preceding tables as having been convicted several times during the year are the drunkards, the vagrants, and the petty thieves. Naturally the more serious offenders are rarely afforded an opportunity of appearing before the Courts twice in one year.

The punishments awarded to offenders vary from nominal imprisonment to the supreme penalty of death. Prisoners under sentence of hard labour are, after examination by the medical officer, given such work as the prison authorities consider comes within the meaning of the sentence. Penal servitude is not awarded for a shorter term than three years. In the case of male prisoners it is taken to mean hard labour on the roads or other public works, and in the case of female prisoners, hard labour in gaol. The punishment is practically the same as hard labour. Prisoners undergoing a sentence of imprisonment without labour are treated differently from others, and if they entirely maintain and clothe themselves they are exempted from any work, otherwise they contribute to their own support by performing such labour as may be provided. Under section 405 of the Criminal Law Amendment Act a prisoner who has been convicted of a felony attended with violence to the person, or committed by the offender when armed, or by means of any threat, is liable to be kept in irons for a portion of his term of imprisonment, but not extending beyond the first three years.

The effect of punishment in reforming criminals, or in restraining them from the commission of crime, is a subject upon which a great deal has been written. It is certain that in New South Wales there has been a great decrease in crime, but it seems equally certain that this satisfactory state of things is due to an improvement in the material and intellectual condition of the whole community, and not to any deterrent effect which punishment has had upon the criminal.

A summary of sentences imposed upon offenders affords little clue to the gravity of the offences committed. Thus, for simple larceny the sentences of imprisonment ranged from 2 days to 5 years; for common assault, from 2 days to 1 year; for maliciously injuring property, from 2 days to 2 years; for receiving stolen property, from 1 month to 10 years; for begging alms, from 2 days to 1 month; and for perjury, from 6 months to 5 years. The great anomaly disclosed by these sentences might disappear if the circumstances attending each individual case were considered, but the scope of this work only admits of the facts in regard to the sentences themselves being recorded.

The following summaries give a classification for 1896, according to the length of the sentences and the nature of the offences; the two previous tables show the number of distinct persons sentenced, while the figures in the two following statements refer to the number of offences punished, the same person in some instances having been sentenced several times in the course of the year :—

Offences.	Total Offences.	Imprisonment for										Death.
		2 days and under.	3 days and under 1 week.	1 week and under 1 month.	1 month and under 6.	6 months and under 12.	1 year and under 2.	2 years and under 5.	5 years & under 10.	10 years & under 15.	Until order complied with, &c.	
Offences against the person	904	10	6	273	441	61	36	47	22	5	...	3
Offences against property with violence	281	3	2	89	94	14	30	33	16	...	...	...
Offences against property without violence	2,358	26	11	499	1,198	379	108	104	31	2	...	...
Forgery and offences against the currency ...	80	...	...	...	5	16	29	24	3	2	1	...
Offences against good order	6,632	1,469	1,147	2,566	1,313	131	4	2	...	...	...	...
Offences not included in the preceding	969	83	102	433	216	22	40	9	3	...	61	...
Total offences committed by males	11,224	1,591	1,268	3,860	3,267	623	247	219	75	9	62	3

It will be seen that the sentence of death was passed on three males. In one case only was it carried out, and in the other two cases it was commuted to imprisonment for life. In each case the prisoners were charged with murder. Of the persons included in the column "Until order complied with, etc.," 61 were wife and child deserters against whom there were unsatisfied maintenance orders, and the remaining person was ordered to be imprisoned during the pleasure of the Court for contempt.

The classification of sentences according to their length and the nature of the offences for which females suffered imprisonment in 1896 is given below. In 26 cases only, out of 3,061, was the length of sentence one year or over. Sentence of death was passed in one instance only on a charge of murder, but it was commuted to imprisonment for life. The terms for which women are sentenced are much shorter than those of men, as their offences, generally speaking, are much lighter :—

Offences.	Total Offences.	Length of Sentences.							
		2 days and under.	3 days and under 1 week.	1 week and under 1 month.	1 month and under 6.	6 months and under 12.	1 year and under 2	2 years and under 5.	Death.
Offences against the person ...	51	4	1	20	16	3	5	1	1
Offences against property with violence	35	...	...	29	6	...	...	...	...
Offences against property without violence	185	...	1	62	81	26	7	8	...
Forgery and offences against the currency	3	...	...	...	...	2	1	...	...
Offences against good order...	2,762	337	384	1,374	590	76	1	...	...
Offences not included in the preceding	25	3	7	6	6	...	1	2	...
Total offences committed by females	3,061	344	393	1,491	699	107	15	11	1

Allusion has already been made to the number of persons with more than one conviction recorded against them during 1896. It is interesting to compare these figures with the records of previous years, which are given below as far back as 1889, beyond which year the statistics of reconvictions are not entirely reliable. The table also gives a statement of the average number of offences committed by each person confined:—

Year.	Prisoners sent to Gaol more than once.		Offences Committed.		Average number of Offences Committed.	
	Males.	Females.	Males.	Females.	Males.	Females.
1889	1,224	663	3,126	2,539	2·6	3·8
1890	1,196	565	3,165	2,201	2·7	3·9
1891	1,285	584	3,431	2,457	2·7	4·2
1892	1,787	586	4,828	2,326	2·7	4·0
1893	1,642	567	4,141	2,328	2·5	4·1
1894	1,572	576	4,093	2,331	2·6	4·0
1895	1,573	577	4,249	2,338	2·7	4·1
1896	1,751	539	4,679	2,363	2·7	4·4

From the evidence of the above table there would appear to be a constant reappearance of the same faces before the Courts to account for so high an average of reconvictions. The proportion of habitual offenders, if those with previous convictions may be so termed, is remarkable, and will perhaps be better illustrated by the following table than by the one just given. The returns only include convictions within the year named, convictions in a previous year being disregarded. If all convictions had been included, the proportion for 1896 would, in all likelihood, have been about 28 per cent. :—

Year.	Percentage of prisoners with previous convictions.	Year.	Percentage of prisoners with previous convictions.
1887	25·4	1892	26·4
1888	25·3	1893	23·6
1889	22·5	1894	23·3
1890	22·2	1895	23·5
1891	21·3	1896	23·5

It is to be regretted that at present it is impossible to give more information concerning prisoners with previous convictions than is recorded in the previous table and on page 796; but for future issues of this book statistics of this kind will be available. The International Union for Criminal Legislation, for the purpose of strengthening society in its defence against "the enemy," recommends the introduction of an elaborate system under which notice of every conviction for crime shall be sent by the police to the office in which the birth of the convicted person was registered, so that the Registrar of the district may be enabled to keep a record of the career of a criminal from birth to death. Apart, however, from the costliness of the system, the times are not yet ripe for such an innovation; and even if it were adopted, it would be several years before results of any value for statistical purposes could be obtained.

The number of distinct persons committed to gaol under sentence during each of the past ten years is given in the following table. The number fluctuated considerably during the period under review, but there is ample evidence in this table, taken in conjunction with that on page 776, showing the trials in the superior courts, that crime is steadily diminishing:—

Year.	Persons.	Year.	Persons.
1887	9,046	1892	8,957
1888	10,096	1893	9,369
1889	8,827	1894	9,215
1890	7,939	1895	9,165
1891	8,791	1896	9,724

Under Act 4 Vic. 29 a Visiting Justice is appointed to visit each ol. He is empowered to hear and determine all complaints which ıy be made against a prisoner of disobeying the rules of the gaol, or having committed any offence, and may pass a sentence of confine- ꞌnt in a solitary cell for a term not exceeding seven days. In cases persistent insubordination, a charge upheld before two or more stices of the Peace renders the prisoner liable to a sentence of close nfinement for one month; and if the culprit is a prisoner convicted felony, or serving a sentence of hard labour, a punishment of personal rrection may be awarded. Two sentences of whipping were carried t in 1896. The number of punishments inflicted upon refractory soners during the last ten years is given as follows:—

Year.	Prisoners punished in gaols.			Percentage of total prisoners punished.
	Solitary confinement.	Other punishments.	Total.	
1887	1,445	416	1,861	10·5
1888	1,302	246	1,548	9·3
1889	1,195	331	1,526	10·0
1890	1,458	266	1,724	11·8
1891	1,235	304	1,539	10·1
1892	1,412	317	1,729	10·5
1893	1,053	234	1,287	10·9
1894	982	300	1,282	11·0
1895	1,077	228	1,305	11·1
1896	924	247	1,171	12·2

ıere were 54 persons—52 males and 2 females—imprisoned for during the year 1896. As the time of detention as a rule only ded for a short period, the number of debtors in confinement at ne time was not large, and on the 31st December, 1896, there only 3 persons in gaol for debt. The number of persons sent to or debt during each of the last ten years will be found in the ng table:—

	Males.	Females.	Total.	Year.	Males.	Females.	Total.
	48	2	50	1892	54	...	54
	56	1	57	1893	55	3	58
	71	1	72	1894	54	4	58
	59	2	61	1895	70	4	74
	45	...	45	1896	52	2	54

lowing table gives the number of the prisoners employed in the ınd minor gaols at the end of 1896, and those engaged in the allings. In some of the gaols there are no means of finding nployment of a profitable or useful nature, otherwise the number shown could be very much increased; and it must also be remembered that there are many prisoners whose services are not available for labour, such as those whose sentences do not carry hard labour and those exempt from work on account of medical and other reasons. The net value of the labour done during 1896 amounted to £20,55[illegible], exclusive of the value set upon the labour of the prisoners engaged in the construction of the breakwater at Trial Bay, and of ordinary labour directly connected with the gaols.

Carpenters and assistants ...	42	Bookbinders......................	27
Painters	14	Writers..........................	25
Blacksmiths and assistants	26	Washing	75
Tinsmiths........................	18	School assistants................	9
Masons...........................	9	Hospital attendants	33
Stonecutters and assistants	39	Barbers..........................	15
Labourers........................	228	Needlework.......................	87
Brushmakers	10	Sweepers and cleaners	258
Matmakers	63	Cooks' Assistants	98
Shoemakers.....................	99	Other employments	650
Tailors	131		
Hatmakers	58	Total employed	2,014

Among those classed as engaged in "other employments" are included 74 prisoners working at the Trial Bay Breakwater. Prisoners under sentence of penal servitude, of hard labour on the roads and public works, or of imprisonment with hard labour, become eligible for employment upon the public works at Trial Bay Prison under the following conditions:—Prisoners under sentence of from three to five years, who have not been punished for misconduct within the previous six months, and are favourably recommended by their gaolers, at a period twelve months before they would become eligible for discharge under the ordinary remission regulations, and in anticipation of such discharge; under sentence of five to ten years, with similar conditions as regards conduct, at a period of eighteen months anterior to discharge; and under sentence of ten years and upwards, at a period of two years anterior to discharge. The construction of the breakwater is being supervised by officers of the Public Works Department, and the prisoners engaged in the work, who are entirely under the control of the Comptroller-General of Prisons, receive a small sum of money, and are supplied with rations, as well as with clothing which is not of the prison pattern.

Besides the foregoing, there were at the close of the year 1896 as many as 343 prisoners who were not employed. The reasons for such exemption will be found in the following statement:—

In hospitals	76	Recent arrivals, not set to work	20
In cells	12	In transit	2
Under medical treatment ...	28	Under separate treatment	2
Exempt from work	9	Not under sentence (including debtors)	143
Prisoners' delegates............	16		
Keeping themselves............	3		
Incapable	32	Total	343

Persons whose cases have not yet been disposed of are allowed to see their legal advisers and others who may visit them in reference to their trial. It is not required that they shall wear prison clothing; and other privileges, consistent with safe custody, are granted to them. Persons under examination are not allowed to have any communication made to them while in the prison except by their legal advisers, unless such a proceeding is specially sanctioned by the Justice conducting the examination.

By continuous good conduct and industry prisoners become eligible for a remission of sentence, in accordance with the following scale:—Sentences not exceeding five years, one-sixth of the term; sentences beyond five but not exceeding ten years, one-fifth of the term; and sentences of more than ten years, one-fourth of the term. Prisoners who are serving a sentence of not more than twelve months, or who have had the death penalty commuted, do not enjoy these privileges; but the circumstances of their cases may be considered by the Minister for Justice, who has power to recommend to the Governor, either on his own responsibility or after consultation with his colleagues in Cabinet, the remission of part of such sentences.

Under section 409 of the Criminal Law Amendment Act a prisoner under sentence may be granted a written license to be at large within specified limits during the unexpired portion of his sentence. Sureties are required, unless under exceptional circumstances, for good behaviour and observance of the conditions of the license. The prisoner who is liberated is required to report himself periodically to the police, and is liable to have his license cancelled and to be committed to gaol to undergo the remainder of his sentence upon any breach of the conditions upon which he was released. This system was first adopted in September, 1891, and at the end of 1896 it had been put in force in 92 cases—those of 89 males and 3 females. Of the 92 licenses issued, there were on December 31, 1896, 42 still in force, 35 had expired, and in 13 cases the balance of the sentence had been remitted and the license cancelled, while in only 2 cases was the license-holder returned to gaol to complete his sentence.

When the neglected state in which many of the prisoners are received is considered, it may be said that the death-rate in gaols is light, and it shows, moreover, signs of decreasing. A comparison between the death-rate in gaols and that of the general population it is difficult to make, but it may be said generally that the death-rate of all persons received into gaol is at present not greater than that of the general population of like ages, while the death-rate of habitual criminals is largely below the average. In the following table the number of deaths, exclusive of those resulting from executions, is given for 1875 and subsequent periods, together with the death-rate per 1,000 of the average number of prisoners in confinement during the year. This average has been obtained for every year by taking the mean of the numbers in confinement at the end of that year and at the end of the preceding year:—

Year.	Deaths.			Death-rate per 1,000 persons in confinement.
	Males.	Females.	Total.	
1875	34	8	42	31·50
1880	37	...	37	18·85
1885	39	11	50	19·90
1890	24	2	26	10·84
1891	37	3	40	15·86
1892	36	4	40	15·27
1893	28	6	34	13·42
1894	22	2	24	9·49
1895	19	3	22	8·61
1896	28	2	30	12·35

Since 1893 returns have been obtained of the height of all persons committed to gaol, and the following results, which relate to the 8,308 males incarcerated during 1896, are given merely as a curiosity of criminal statistics. No comparison with the general population can be made, as no data for such a comparison exist:—

Height.	Age Groups.											Total.
	Under 15.	15 and under 20.	20 and under 25.	25 and under 30.	30 and under 35.	35 and under 40.	40 and under 45.	45 and under 50.	50 and under 55.	55 and under 60.	60 and over.	
Under 4 ft. 6 in. ...	19	..	..	1	..	..	..	..	..	..	..	[illegible]
4 ft. 6 in.	6	3	..	1	..	..	..	..	..	..	..	[illegible]
4 ft. 7 in.	..	..	..	1	..	..	..	..	..	..	..	[illegible]
4 ft. 8 in.	3	2	1	..	..	..	..	..	..	..	1	[illegible]
4 ft. 9 in.	3	4	..	..	..	..	..	..	..	..	..	[illegible]
4 ft. 10 in.	6	10	..	2	1	..	..	2	..	..	1	[illegible]
4 ft. 11 in.	3	8	2	2	4	2	..	..	1	..	7	[illegible]
5 ft.	2	21	4	18	12	5	4	5	8	4	9	[illegible]
5 ft. 1 in.	2	29	16	32	23	21	14	10	17	6	18	[illegible]
5 ft. 2 in.	..	44	33	54	42	30	45	30	12	14	28	[illegible]
5 ft. 3 in.	2	59	46	109	87	54	61	33	26	18	40	[illegible]
5 ft. 4 in.	3	81	89	175	109	109	71	64	57	32	60	[illegible]
5 ft. 5 in.	1	70	98	227	137	144	97	77	51	30	61	[illegible]
5 ft. 6 in.	..	71	138	336	192	154	139	84	62	49	64	[illegible]
5 ft. 7 in.	..	63	109	292	203	190	148	90	41	35	62	[illegible]
5 ft. 8 in.	..	44	103	265	167	143	100	74	57	34	58	[illegible]
5 ft. 9 in.	..	23	69	212	121	96	69	49	35	24	32	[illegible]
5 ft. 10 in.	..	13	38	123	87	71	43	32	21	13	22	[illegible]
5 ft. 11 in.	..	10	20	63	48	37	17	14	12	8	7	[illegible]
6 ft.	..	2	10	48	29	24	14	14	8	6	6	[illegible]
6 ft. 1 in.	..	2	3	12	13	3	4	2	5	1	1	[illegible]
6 ft. 2 in.	..	..	1	4	3	2	1	1	1	..	..	[illegible]
6 ft. 3 in.	..	..	..	1	..	1	2	..	..	..	..	[illegible]
6 ft. 5 in.	..	..	..	1	..	..	..	..	..	..	..	[illegible]
6 ft. 6 in.	..	..	..	1	..	..	..	..	..	..	..	[illegible]
Total	50	559	780	1,980	1,278	1,086	829	581	414	274	477	[illegible]

A similar return relating to the 1,237 females committed to gaol in the course of the year 1896 shows the following results :—

Height.	Age Groups.											Total.
	Under 15.	15 and under 20.	20 and under 25.	25 and under 30.	30 and under 35.	35 and under 40.	40 and under 45.	45 and under 50.	50 and under 55.	55 and under 60.	60 and over.	
Under 4 ft. 6 in. ..	..	..	1	1	1	1	2	..	..	..	..	6
4 ft. 6 in.	..	..	..	..	..	..	..	2	..	..	..	2
4 ft. 7 in.	..	1	..	1	1	..	..	1	..	..	..	4
4 ft. 8 in.	..	..	1	2	..	3	4	2	1	..	..	13
4 ft. 9 in.	..	1	2	1	5	5	4	1	3	..	1	23
4 ft. 10 in.	..	9	11	5	5	6	10	3	3	2	2	56
4 ft. 11 in.	..	8	16	18	14	11	13	5	5	2	3	95
5 ft.	..	11	30	26	33	34	29	11	9	5	13	201
5 ft. 1 in.	..	17	22	29	29	29	21	19	10	2	7	185
5 ft. 2 in.	..	10	25	41	45	37	23	17	8	2	4	212
5 ft. 3 in.	..	5	17	24	39	24	16	12	9	3	6	155
5 ft. 4 in.	..	3	27	26	17	11	13	12	4	4	4	121
ft. 5 in.	..	3	18	20	16	11	11	5	6	4	..	94
5 ft. 6 in.	..	..	6	10	8	5	3	3	3	2	..	40
5 ft. 7 in.	..	..	2	5	2	1	..	..	1	1	..	12
5 ft. 8 in.	..	1	2	1	..	2	..	1	1	..	..	8
5 ft. 9 in.	..	..	..	2	1	2	..	1	1	..	..	7
5 ft. 10 in.	..	..	..	1	..	..	1	..	..	..	..	2
6 ft. 1 in.	..	..	..	1	..	..	..	..	..	..	..	1
Total	..	69	180	214	216	182	150	95	64	27	40	1,237

CAPITAL PUNISHMENT.

In the early days of settlement the spectacle of judicial executions must have been extremely common. Offences which are now summarily dealt with by magistrates, and deemed sufficiently punished by imprisonment for two or three months, were in some cases punishable by death. This barbarous system lasted until about the year 1832, when the offences of stealing from a dwelling money or goods to the value of £5, and of killing or stealing horses, cattle, or sheep, were removed from the category of capital crimes. Five years later the punishment of death was abolished in the following cases :—Riotous destruction of buildings and machinery, riotous assembling, rescue of a person convicted of murder, seducing a person in the Royal Navy from duty, inciting to mutiny, administering unlawful oaths purporting to bind the person taking the same to commit any treason or murder, breaking prison, escaping from lawful custody more than once, smuggling while armed, shooting at any vessel, or maliciously shooting or maiming any officer of the Navy or Revenue Service. Executions have been less numerous of late years than formerly, the dread penalty being carried out in only a small proportion of cases wherein the death sentence has been pronounced. The number of executions since 1825 is given herewith. In three years only have there been no executions. Four females have been hanged during the period in question :—

Year.	Convictions.	Executions.	Year.	Convictions.	Executions.	Year.	Convictions.	Executions.
1825	54	9	1849	6	4	1873	10	4
1826	72	21	1850	5	4	1874	14	3
1827	93	29	1851	8	2	1875	8	2
1828	106	28	1852	10	5	1876	15	4
1829	112	52	1853	4	2	1877	9	2
1830	136	50	1854	11	6	1878	12	1
1831	143	32	1855	12	5*	1879	21	1
1832	156	12	1856	7	……	1880	21	4
1833	135	31	1857	9	4	1851	6	2
1834	148	44	1858	9	1	1882	14	3
1835	142	40	1859	10	7	1883	9	1
1836	79	26	1860	11	5*	1884	8	2
1837	90	12	1861	32	2	1885	11	3
1838	130	19	1862	18	6	1886	22	2
1839	53	22	1863	16	6	1887	4	4
1840	13	8	1864	5	2	1888	17	2
1841	27	18	1865	10	3	1889	4	3*
1842	47	13	1866	20	6	1890	2	1
1843	22	8	1867	19	4	1891	6	3
1844	22	8*	1868	13	5	1892	4	1
1845	15	3	1869	6	……	1893	8	5
1846	11	1	1870	3	……	1894	8	5
1847	10	6	1871	11	3	1895	7	1
1848	6	5	1872	19	3	1896	4	1

* One female.

During the seventy-two years embraced in the table just given, 2,340 persons were sentenced to death, and of these, 1,736 were condemned during the first eighteen years. For the whole period the executions numbered 642, of which 466 were carried out during the first eighteen years.

A study of the statistics of judicial executions in New South Wales prior to the year 1842 will make it abundantly plain that the barbarous system of taking life for insufficient cause, so far from striking terror into the hearts of would-be criminals, had the effect of lowering the moral tone of the whole community, and, therefore, of making some of its members more prone to commit the very offences which the punishment was intended to prevent. The death penalty is now awarded to murder, attempt at murder, rape, attempt at rape, and setting fire to a dwelling knowing that there is a person therein; it is, however, generally carried out for murder only. The following statement shows the number of convictions and executions for the offences named for a period of twenty-six years :—

Year.	Murder and Attempt at Murder.		Rape.		Attempts at Rape. (Convictions.)
	Convicions.	Executions.	Convictions.	Executions.	
1871	9	3	2	......	2
1872	14	3	5	......	4
1873	9	4	1	......	3
1874	7	2	7	1	10
1875	7	1	1	1	4
1876	12	4	3	......	3
1877	4	2	5	......	......
1878	8	1	4	......	3
1879	16	......	5	1	3
1880	15	4	6	......	......
1881	3	1	3	1	6
1882	10	3	4	......	3
1883	8	1	1	......	3
1884	7	2	1	......	......
1885	9	3	2	......	......
1886	10	2	12	......	9
1887	3	......	1	4*	......
1888	15	2	2	......	......
1889	3	3	1	......	......
1890	2	1	1	......	1
1891	5	3	1	......	......
1892	6	1	1	......	......
1893	7	5	2	......	......
1894	6	5	1	......	......
1895	5	1	2	......	......
1896	4	1	......	......	......

* Mount Rennie case ; convicted in 1886.

The last execution for rape took place shortly after the close of the year 1886, when four youths were hanged. Since then, as shown by the table just given, there have been only twelve capital convictions for rape and for an attempt to commit rape. It would be rash to argue that the executions in 1887 have exercised a salutary effect upon persons disposed to commit this crime, for there has been no diminution in the number of persons committed for trial. With more reason it might be assumed that juries are loth to convict for rape, knowing that death is the penalty assigned by law as its punishment.

COST OF POLICE AND PRISON SERVICES.

The following table shows the amount expended in maintaining the police and prison services during the last five years, and also the amount of fines paid into the Consolidated Revenue, and the net return from prison labour:—

Expenditure and Revenue.	1892.	1893.	1894.	1895.	1896.
Expenditure—	£	£	£	£	£
Police	323,249	319,626	324,171	333,110*	330,516†
Penal establishment	156,776	155,173	132,064	134,292	141,028
Total	480,025	474,799	456,235	467,402	471,544
Revenue—					
Fines	15,805	13,981	11,460	12,443	11,027
Net return from prison labour	23,400	22,941	22,469	21,817	20,537
Total	39,205	36,922	33,929	34,260	31,564
Net Expenditure	440,820	437,877	422,306	433,142	439,980
	s. d.	s. d.	s. d.	s. d.	s. d.
Per Inhabitant	7 6	7 3	6 10	6 10	6 10

* Financial year, 1895-6. † Financial year, 1896-7.

It is to be understood that the value of prison labour set down in the above table represents labour of a productive character only.

EXTRADITION.

There are two Imperial statutes in force in New South Wales for the surrender of fugitive criminals, viz., the Extradition Act of 1870, and the Fugitive Offenders Act of 1881. The former provides for the surrender to foreign States of persons accused or convicted of certain crimes within the jurisdiction of such States, and for the trial of criminals surrendered to British dominions. Treaties for the extradition of fugitive criminals exist between Her Majesty's Government and the Governments of France, Germany, Austria-Hungary, Brazil, Spain, Italy, Belgium, the Netherlands, Denmark, Sweden and Norway, Switzerland, Hayti, the United States of America, the Argentine Republic, Columbia, Ecuador, Guatemala, Mexico, Orange Free State, Portugal, Roumania, Russia, Salvador, Tonga, and Uruguay. In proceedings taken in New South Wales under this Act the fugitive is brought before the Governor, who hears evidence on oath, and, if satisfied that the person is liable to be extradited, makes out a warrant to that effect. At the hearing of the case, the Consul for the country to which the person charged belongs, the Crown Solicitor, and the Inspector General of Police are present. If a warrant is made out, the prisoner is sent to Darlinghurst Gaol for fifteen days prior to extradition, during which interval he may apply to the Supreme Court for a writ of *habeas corpus*. During the ten years ended 1896 there were altogether 24 persons extradited, all of whom were escapees from the French penal settlement of New Caledonia.

Under the Fugitive Offenders Act, 1881, provision is made for the surrender from the United Kingdom to a British possession or *vice versa*, or from one British possession to another, of fugitives charged with the perpetration of crimes which are, in the part of Her Majesty's dominions where they are committed, punishable by imprisonment with hard labour for twelve months or more, or by some greater penalty. Persons apprehended under the Act are dealt with at a Magistrate's Court, and their cases are included in the figures relating to the business transacted at Magistrates' Courts, and not in the returns relating to the Extradition Court.

During 1896, 25 fugitive offenders—24 males and 1 female—were arrested in other parts of Her Majesty's dominions, or in foreign countries, and returned to New South Wales. Of these 5 were summarily convicted before magistrates, and 14 were committed to higher courts, the other 6 cases being withdrawn or discharged.

There were also 40 fugitive offenders—35 males and 5 females—from other portions of Her Majesty's dominions arrested in New South Wales, and brought up at magistrates' courts during the year. Of these, 13 were remanded to Victoria, 16 to Queensland, 2 to Tasmania, and 5 to New Zealand; the other 4 cases being withdrawn or discharged.

DECREASE IN CRIME.

There are two ways available for testing the increase or decrease in crime: the first, which is by comparing the number of arrests with the whole population of the country, may be said to be a test of the willingness or otherwise of the people to obey the laws; the second is a comparison of the persons committed for trial by jury with the whole population, and as all serious offenders are so tried, this may be looked upon as a test of the prevalence of serious crime. In making comparisons of this kind it must be borne in mind—first, in regard to apprehensions, that as new laws are continually being made, and the large proportion of such laws attach the penalty of fine or imprisonment to their breach, the number of offences for which a person is liable to be apprehended has constantly been increasing; and second, that the general tendency of late years has been for magistrates to deal summarily with a large proportion of the cases submitted to them. Hence it is quite possible that crime might be neither increasing nor diminishing, and yet the returns show an increase of apprehensions and a decrease of committals. Taking all things into consideration, the tables given hereunder may be accepted as showing that crime has largely decreased. The first table shows, in quinquennial periods, the mean population, the average number of apprehensions, and the proportion of these to the general population for the last twenty-seven years:—

Period.	Mean Population.	Apprehensions.	
		Average Annual.	Per 100,000 of Population
1870–74	526,733	19,422	3,687
1875–79	633,255	28,837	4,554
1880–84	802,712	41,262	5,140
1885–89	1,000,744	39,406	3,938
1890–94	1,174,963	37,854	3,222
1895–96	1,276,207	36,790	2,883

It cannot be claimed that 2,883 apprehensions per 100,000 of population is a low average; on the contrary, it is much above that of most of the other colonies of the group, but it is a marked improvement on the rates of previous years. The comparison made above has reference to the whole population, but as few persons under 15 years of age commit crimes, children under that age have been excluded from the following statement, which compares the four years 1879–82 with the four years 1889–92, these periods being selected on account of the number in each age-group being accurately determinable from the Census taken about the middle of each period. The following figures relate to males:—

Age-group.	1879–82.			1889–92.		
	Population.	Average Annual Arrests.	Per 100,000 of Population.	Population.	Average Annual Arrests.	Per 100,000 of Population.
15 years and under 20...	38,169	1,734	4,543	54,267	1,882	3,468
20 ,, ,, 30...	75,106	8,884	11,829	117,858	9,939	8,433
30 ,, ,, 40...	56,699	8,141	14,358	92,495	8,848	9,565
40 ,, ,, 50...	43,668	5,945	13,614	58,500	5,803	9,920
50 ,, upwards...	44,602	5,061	11,347	68,970	5,045	7,315

In every age-group there has been a decided fall in the proportion of arrests, but the improvement is most marked in the higher age-groups, which every year are becoming more largely composed of Australian born. The decline in the proportion of females arrested is even more noticeable than amongst the males. The following figures relating to females are on the same basis as those in the preceding table :—

Age-group.	1879–82.			1889–92.		
	Population.	Average Annual Arrests.	Per 100,000 of Population.	Population.	Average Annual Arrests.	Per 100,000 of Population.
15 years and under 20...	37,565	484	1,288	54,476	463	850
20 ,, ,, 30...	59,969	1,813	3,023	100,391	1,814	1,807
30 ,, ,, 40...	40,345	2,018	5,002	63,993	1,600	2,500
40 ,, ,, 50...	27,189	1,471	5,410	40,895	1,035	2,531
50 ,, upwards..	27,120	1,118	4,122	45,201	740	1,637

Turning to the committals to the higher Courts and the convictions there, an even more decided decline is noticeable, and as the committals represent the more serious types of offences, the decline must be looked upon as especially satisfactory :—

Period.	Committals.		Convictions.	
	Annual Average.	Per 100,000 of Population.	Annual Average.	Per 100,000 of Population.
1870–74	1,134	215·3	644	122·3
1875–79	1,506	237·8	881	139·1
1880–84	1,693	210·9	1,044	130·1
1885–89	1,539	153·9	885	88·4
1890–94	1,479	125·9	916	78·0
1895–96	1,354	106·1	875	68·6

It will be seen that the fall has been nearly continuous over the whole period, convictions for serious offences being scarcely so numerous as they were twenty years ago, notwithstanding the fact that population has nearly doubled during the interval.

It may be taken, then, as clearly proved that there has been a great decrease in crime during the last twenty-two years. The reform, if it may be so termed, has come about owing to a general improvement in the community itself, and not to the reform of individuals by reason of the deterrent effect of punishments inflicted. It is in vain to look for the reformation of persons who have lapsed into crime; the prison statistics nowhere show that punishment as now administered has in general any such effect. Reference has already been made to persons with previous convictions, but, as explained, the convictions referred to are convictions within the year. If all convictions be included, it would seem that about 72 per cent. were persons who entered prison during 1896 for the first time or whose history was unknown. Of these, a large number, probably not far short of 40 per cent., find their way again into prison, not deterred by their former experience, or driven to crime by the loss of caste which a criminal conviction inevitably involves. Of the persons convicted for the second time, 52 per cent. will find their way to gaol for the third time, and of the thrice convicted about 60 per cent. will be again received into gaol.

CRIME IN AUSTRALASIA.

The convictions in the higher Courts of New South Wales, taken over a series of years, greatly exceed in number those of any other colony, and in proportion to the population they are only exceeded by Western Australia. So marked is this fact that much speculation has been indulged in as to the probable cause of the anomaly. It is admitted that the people of all the colonies are practically derived from the same stock, while their occupations and habits of life are fairly alike, and a theory has been hazarded that the high rate of crime in New South Wales is due to a blood taint derived from the original bond-population of this colony. Such a theory is manifestly absurd, as Tasmania, the province which received proportionately the largest number of convicts, and the population of which has been least diluted by immigration, has for many years had the most favourable record of convictions. There is no evidence that such a population now exists anywhere in Australasia; it certainly does not exist in New South Wales. But though the gratuitous theory above alluded to may be easily disposed of, the fact remains that the second largest proportion of convictions in the higher courts occurs in this colony. Western Australia shows a much higher proportion; but its sparse population and peculiar situation would warrant the anticipation of a large amount of crime of a kind not found in the older settled provinces. The convictions after trial in the Superior Courts of Australasia, for the year 1896, were as follow:—

Colony.	Convictions in Superior Courts.	
	Number.	Per 100,000 of Population.
New South Wales	879	68
Victoria	424	36
Queensland	258	55
South Australia	131	36
Western Australia	177	148
Tasmania	35	21
New Zealand	291	41
Australasia	2,195	51

In the foregoing table it will be observed that New South Wales has the largest proportion of convictions of any of the colonies except Western Australia, the peculiar circumstances of which have already been alluded to. It has already been pointed out, in explaining the changes in the compilation of the criminal statistics, that the high rate of offenders in New South Wales is due to a number of causes. First among these, as accounting for the excessive number of convictions in the Superior Courts, may be mentioned the differences in the jurisdiction of the Courts of the various colonies. For instance, South Australia and Tasmania have no intermediate Courts like the Quarter Sessions of New South Wales and the District Courts with criminal jurisdiction of some of the other colonies, and many persons who would be committed to higher Courts in New South Wales are convicted in the Magisterial Courts of South Australia and Tasmania. Further, in Victoria magistrates have a much wider jurisdiction than in New South Wales, and many offenders who are summarily convicted in the former colony would have to be committed to a higher tribunal in the latter province. It will be seen, therefore, that this question of the jurisdiction of the magistracy of the colonies is one which must affect the criminal returns of the Superior Courts.

Another point which must be considered is the large number of persons who drift from one part of the country to another in search of work. For many years there has been in New South Wales a large population whose abode in any district is determined by the existence of a demand for unskilled labour, and it is from the ranks of this floating population that a large proportion of the persons convicted of crime is derived. All the colonies have, to a greater or less extent, this class of population; but in New South Wales it is numerically the largest. As these people settle down to regular employment in a fixed abode and acquire interests apart from the excitements of an unsettled life, crime will be found to diminish. The neighbouring colony of Victoria, where the decrease of convictions has steadily kept pace with the settlement of its population, may be cited as an example of this truth, the proportion of convictions in 1896 being 36 per 100,000, as compared with 101 in 1866.

The laws relating to crime are somewhat similar throughout Australasia, although there are one or two important points of difference, such as the provision of the Crimes Act of 1890, under which Justices in Victoria may, under certain circumstances, discharge a person accused of simple larceny without proceeding to a conviction, which might be found on investigation to considerably affect the returns. It is possible, too, that the administration of these laws may be more rigorous in New South Wales than in any of the other provinces. This has already been shown to be the case in regard to drunkenness, and offers an additional explanation of the large number of convictions obtained in New South Wales. It should also be remembered that in this colony there is no Act to prevent the influx of criminals, such as exists and is stringently enforced in some of the other provinces.

THE SUPREME COURT—CIVIL JURISDICTION.

The chief legal tribunal of the colony is the Supreme Court, which is at present composed of seven Judges, viz., a Chief Justice and six Puisne Judges. Civil actions are usually tried by a jury of four persons, but either party to the suit, on cause shown, may apply to a Judge in Chambers to have the cause tried by a jury of twelve. Twice the number of jurors required to sit on the case are chosen by lot, from a panel summoned by the Sheriff, and from that number each of the parties strikes out a fourth, the remainder thus selected by both parties forming the jury who are to try the case. The jury are constituted the judges of the facts of the case only, being bound to accept the dicta of the Judge on all points of law. From the Court thus constituted an appeal lies to what is called the "Full Court," sitting *in Banco*, which is generally composed of at least three of the Judges. The Chief Justice, or in his absence the senior Puisne Judge, presides over the Full Court, which gives its decision by majority. The circumstances under which new trials are granted are:—Where the Judge has erroneously admitted or rejected material evidence; where he has wrongly directed the jury on a point of law; where the verdict of the jury is clearly against evidence; or where, from some other cause, there has evidently been a miscarriage of justice.

Provision is made for appeals to the Privy Council, but any suitor wishing to carry his cause before the supreme tribunal of the Empire must first obtain leave so to do from the Supreme Court. The amount in dispute must be at least £500, or affect the construction of a New South Wales statute. In other cases application for leave to appeal must be made to the Privy Council itself. The British Government has appointed Chief Justice Way, of South Australia, to a seat on the Judicial Committee of the Privy Council, so that he may bring to the deliberations of the Committee his knowledge of the laws, especially the land laws, of the colonies. So far as New South Wales is concerned, there have been, during the ten years ended 1896, 41 appeals to the Privy Council in common law, 27 in Equity, 2 in Bankruptcy, and 1 from the judgment of the Vice-Admiralty Court; of which, 5 appeals in common law and 4 in Equity were made during 1896. Only two of these appeals were in cases directly arising out of the Crown Lands Acts; but in a number of other cases questions of interpretation of the land laws of the colony have arisen when the appeals were being considered by the Privy Council.

The Chief Justice has also an extensive jurisdiction as Commissary of the Vice-Admiralty Court, in which all cases arising out of collisions, etc., in Australian waters, are determined. One of the Puisne Judges acts as his deputy, but the Supreme Court, as such, has no jurisdiction in Admiralty cases.

One of the Puisne Judges also acts as Judge of the Equity Court, from whose decrees an appeal lies to the Full Court, and thence to the Privy Council.

Affairs in Bankruptcy are also dealt with by a Puisne Judge, assisted by the Registrar. An appeal can be made to the Full Court against the Judge's decision.

Another Puisne Judge presides over the Divorce Court, in which cases are usually tried without a jury, an appeal lying to the Supreme Court.

The Equity Judge formerly represented the ecclesiastical jurisdiction of the Supreme Court, and heard and decided all applications for the probate of wills and for letters of administration, and also determined suits as to the validity, etc., of wills. By the Probate Act of 1890 this jurisdiction was vested in the Supreme Court in its Probate jurisdiction, and the business transferred to such Judge as might be appointed Probate Judge. Motions for rehearing cases, adjudicated in this Court, are sometimes made before the Supreme Court or Privy Council.

A Judge can only be removed from office upon the address of both Houses of Legislature. Upon permanent disability or infirmity, or after fifteen years' service, a Judge is entitled to retire from the Bench with a pension, the amount of which, as well as of his salary, is secured and regulated by various Acts.

A person eligible for admission as a solicitor, provided he has not been admitted in Great Britain or Ireland, or in any of the other Australasian Colonies, must have been articled to some solicitor practising in New South Wales, and have served for a term of five years, or in the case of a person who has taken a degree in Arts before entering into articles, a term of three years, and must have passed the examinations of a Board, consisting of two barristers and four solicitors, appointed annually for that purpose by the Supreme Court. The admission of a solicitor can only take place on the last day of any of the four terms into which the judicial year is divided. A solicitor who ceases to practise for twelve months continuously may be struck off the roll, in which case it is necessary for him to give a term's notice before he can be readmitted. A barrister who has been in practice as such for five years, having caused himself to be disbarred, can, under Act 55 Vic. No. 31, be admitted as a solicitor without examination. Under the provisions of the same Act a solicitor is competent to appear, and has the right of audience, in all courts of New South Wales. The Court can suspend or remove from the roll of solicitors any person who, in its opinion, has been guilty of misconduct or malpractice.

The Board for approval of qualified persons to be admitted as barristers of the Supreme Court of New South Wales, is formed under Act 11 Vic. No. 57, and consists of the Judges of the Supreme Court, the Attorney-General for the time being, and two elected members of the Bar. Applicants must have been students-at-law for three, or in the case of graduates, for two years, and have passed all examinations prescribed by the Board. A solicitor who has been in practice for not less than five years, and who has removed his name from the roll of solicitors, is entitled, under Act 55 Vic. No. 31, to be admitted as a barrister without examination. Admission is made in open Court any day in term by any two Judges sitting together.

During the year 1897 there were 143 persons practising as barristers of the Supreme Court, while the solicitors numbered 838, of whom 474 were in the metropolitan district, and 364 in various country towns.

COMMON LAW JURISDICTION OF SUPREME COURT.

The following table gives the number of writs issued and the amount for which judgment was signed in the Supreme and Circuit Courts (Common Law jurisdiction) during the last seven years. The number of writs issued includes cases which were subsequently settled by the parties; but the total amount involved in these claims is not, of course, included in the sum for which judgment was signed. The figures given include taxed costs:—

Year.	Writs issued.	Judgment signed.
	No.	£
1890	5,951	751,825
1891	6,144	537,231
1892	6,219	739,419
1893	6,205	724,211
1894	4,866	489,054
1895	4,118	478,225
1896	3,775	388,382

The number of causes set down and tried is shown below:—

Year.	Causes set down.	Not proceeded with.	Referred to Arbitration.	Causes Tried.				
				Verdict for Plaintiff.	Verdict for Defendant	Disagreement of Jury.	Non-suited.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.
1890	382	160	......	174	45	3	......	222
1891	528	252	......	204	71	1	......	276
1892	450	184	......	212	53	1	......	266
1893	456	190	......	197	69	......	......	266
1894	492	196	......	231	64	1	......	296
1895	426	168	13	196	35	1	13	245
1896	399	179	4	154	45	2	15	216

EQUITY JURISDICTION.

The practice and procedure of the Supreme Court in its equity jurisliction are regulated by the Equity Act, 1880, and subsequent amending Acts. The transactions of the Equity Court during the last seven years were as follow :—

Year.	Statements of Claims.	Statements of Defence.	Petitions.	Summonses.	Motions.	Decrees and Orders.
	No.	No.	No.	No.	No.	No.
1890	224	115	136	....	....	644
1891	212	135	137	....	....	712
1892	246	103	143	....	....	829
1893	240	115	139	....	....	835
1894	221	144	112	148	253	899
1895	222	126	128	131	201	897
1896	254	166	136	120	258	902

PROBATE JURISDICTION.

The number of probates and letters of administration granted by the upreme Court in its testamentary jurisdiction is shown in the following table for the last ten years :—

Year.	Probates and Administrations—Wills annexed.		Letters of Administration.		Total.	
	Number.	Amount sworn to.	Number.	Amount sworn to.	No. of Estates.	Amount sworn to.
		£		£		£
1887	961	3,621,874	665	641,426	1,626	4,263,300
1888	998	3,652,963	667	638,295	1,665	4,291,258
1889	1,115	4,317,734	682	473,611	1,797	4,791,345
1890	1,131	6,605,545	680	922,577	1,811	7,578,122
1891	1,192	4,734,228	767	722,568	1,959	5,456,796
1892	1,287	4,619,164	842	1,150,163	2,129	5,769,327
1893	1,183	3,508,264	782	635,537	1,965	4,143,801
1894	1,372	4,370,217	791	928,567	2,163	5,298,784
1895	1,321	4,185,497	833	672,729	2,154	4,858,226
1896	1,548	5,959,540	940	755,376	2,488	6,694,916

The figures here shown and those dealt with in the chapter on Private Finance as given by the Stamp Duties Department do not agree. The Court gives the gross values of estates, inclusive of such estates as, after nvestigation, are found not to be subject to duty, while the Stamp Duties Department returns the net value of the estates, and excludes hose not subject to duty. The returns shown above are also swollen o some extent by probates taken out a second time.

INTESTATE ESTATES.

An officer is appointed under Act 54 Vic. No. 25, as Curator of Intestate Estates. He is empowered to apply for an order to collect the estate of any person who has died intestate, and left real or personal property, and no widow or next of kin resident within the jurisdiction of the Court; or of a person who has died intestate and left no executor, or no executor capable of acting in execution of his will and willing to do so; and in a few other instances. After meeting all proved and allowed claims, the Curator pays the balance of the amount realised into the Colonial Treasurer's Curator of Intestate Estates Account. Moneys not claimed within six years are paid into the Consolidated Revenue Fund, and used for the public service of the colony. A rightful claimant may afterwards, however, obtain payment thereof, but without interest from the date of payment into the Treasury. Moneys belonging to minors are paid under order of the Court, and invested in the Savings Bank of New South Wales on behalf of the children until they reach the age of 21.

The number of estates opened during 1896 was 463, from which the Curator received £18,054, and paid away £6,605; while in connection with estates opened during previous years £16,160 was received, and £38,031 paid away. Commission and fees to the amount of £1,945 were paid into the Consolidated Revenue during the year. The Revenue also benefited to the extent of £12,795 of unclaimed moneys, while claims amounting to £4,042 were received for moneys which had been paid into the Consolidated Revenue.

BANKRUPTCY JURISDICTION.

The Bankruptcy law is administered by a Judge in Bankruptcy, under 51 Vic. No. 19 and amending Acts. Certain of the powers vested in the Judge are, however, delegated to a Registrar in Bankruptcy, and in the country districts many Police Magistrates and Registrars of District Courts are appointed as District Registrars in Bankruptcy, and have the same powers and jurisdiction as the Registrar in respect to the examination of bankrupts, the issue of summonses, etc. Appeals from decisions of the Registrar or a District Registrar are made to the Judge in Bankruptcy, who also deals with questions relating to priority of claims. When any person becomes embarrassed, or is unable to pay his debts, the law allows him to sequestrate his estate for the benefit of his creditors, or the latter may, under certain specified conditions, apply for a compulsory sequestration. An officer of the Court, termed an official assignee, is deputed by the Judge to manage the sequestrated estate. He receives 2½ per cent. commission on the amount realised and 2½ per cent. on the amount of dividends declared. In some cases the Judge may also award him special remuneration. Creditors have the power to accept, and the Judge to approve, proposals for a composition, or for an arrangement, provided that the scheme has ı approved by a majority representing three-fourths of the value of ›roved claims. If such a proposal has been accepted, one or two ıtees may be appointed in place of, or in addition to, the official gnee. After the acceptance and approval of a composition or a ıme of arrangement, a bankrupt may have his estate released from ıestration. He is also entitled to a release when all the creditors e been paid in full, or when they have given him a legal quittance he debts due to them. In other cases a bankrupt may give notice ıdvertisement three months from the date of sequestration of his ntion to apply for a certificate of discharge. The application is rd within thirty days of the date of the first publication of the ertisement. The Judge receives a report from the official assignee, may either grant or refuse an absolute order of discharge, or suspend operation of the order for a certain time, or grant an order subject onditions respecting the future earnings or income of the bankrupt. tatistics of the transactions of the Bankruptcy Court will be found he chapter of this work dealing with Private Finance. The matter ıost interest from a legal point of view is the expenditure incurred ealizing estates. On an average, costs seem to absorb 40·35 per t. of the unsecured assets.

DIVORCE AND MATRIMONIAL CAUSES JURISDICTION.

'rior to the passing of the Matrimonial Causes Act of 1873 (36 Vic. 9) the Supreme Court of New South Wales had no jurisdiction in ›rce. Under that Act the chief grounds for divorce were adultery e marriage on the part of the wife, and adultery and cruelty on the of the husband. The present Act was assented to on the 9th , 1892, but did not come into force, owing to an informality, till 6th August. During 1893 an amending Act (56 Vic. No. 36) passed. Under these Acts petitions for divorce can be granted for following causes, in addition to those already mentioned:—*Husband Vife.*—Desertion for not less than three years; habitual drunken- for a similar period; being imprisoned under sentence for three rs or upwards; attempt to murder or inflict grievous bodily harm, epeated assault on the husband within a year preceding the date of filing of the petition. *Wife v. Husband.*—Adultery, provided that he time of the institution of the suit the husband is domiciled in South Wales; desertion for not less than three years; habitual ıkenness for a similar period; being imprisoned for three years or ards, or having within five years undergone various sentences unting in all to not less than three years; attempt to murder or ult with intent to inflict grievous bodily harm, or repeated assault ıin one year previously. To entitle either party to seek relief on of these grounds he or she must have been domiciled in the colony three years or upwards at the time of instituting the suit, and must have resorted to the colony for the purpose of having the marriage olved.

In addition to the principal causes for which a divorce may be obtained, judicial separation may be granted for desertion extending over two years. Petitions of nullity of marriage may be granted in cases in which the ceremony is rendered void by the law of the land, or in which some statutory requirements have not been observed, or in which one of the parties is incapable of performing the duties of marriage. The law also provides for suits for the restitution of conjugal rights. Before such a suit can be brought there must have been a request of a conciliatory character to the other party to return to cohabitation.

Further particulars relating to divorce will be found in the chapter dealing with Vital Statistics.

DISTRICT COURTS.

District Courts have been established for the trial of civil causes where the sum in dispute does not exceed £200. They are presided over by Judges who are specially appointed for the purpose, and who also perform the duties of Chairmen of Quarter Sessions, in which capacity they are competent to try all prisoners except such as are charged with capital crimes. District Courts sit during ten months of the year in the metropolis, and they are held twice a year in all considerable country towns. The Judge is not ordinarily assisted by a jury, but in cases where the amount in dispute exceeds £20, either of the parties may, by giving notice to the Registrar of the Court, have a jury summoned. On questions of law, and in respect to the admission or rejection of evidence, an appeal lies to the Supreme Court.

The number of suits brought in the District Courts of the colony, and the mode in which they were tried, are given in the following table for the judicial year terminating at the end of February, 1897 :—

District.	Summonses.						Causes tried.		[illegible]
	Causes tried.	Causes settled without hearing and not proceeded with.	Causes referred by parties to arbitration.	Causes left in arrear.	Total summonses issued.	Total amount sued for.	Verdict for— Plaintiff.	Verdict for— Defendant.	
	No.	No.	No.	No.	No.	£	No.	No.	£
Metropolitan and Hunter	2,669	2,120	2	27	4,818	93,276	2,451	218	[illegible]
Southern	295	283	...	31	609	17,784	257	38	[illegible]
South-western	367	206	...	18	591	17,700	326	41	[illegible]
Western	228	195	...	34	457	19,019	203	25	[illegible]
Northern	465	321	...	63	849	21,098	408	57	[illegible]
North-western	146	89	2	27	264	9,804	125	21	[illegible]
Total	4,170	3,214	4	200	7,588	178,681	3,770	400	[illegible]

Of the 4,170 causes heard during 1896-97, only 39 were tried by jury. During the same period there were 13 appeals from judgments given et Courts. In 9 of these cases the judgment was upheld, and ase it was reversed. There were also 14 motions for new trials, hich were granted, and 5 refused.

MAGISTRATES' COURTS.—SMALL DEBTS CASES.

gistrates' Courts in the metropolitan district can adjudicate upon where the amount in dispute does not exceed £10, and in the y districts upon cases involving an amount not exceeding £30. otal number of small debt cases brought before Magistrates' Courts 1896 was 27,378, of which 10,307 were heard in the metropolitan , and 17,071 in the country courts. Of the metropolitan cases, were 8,355 in which the amount involved was under £5; 1,951 in it was between £5 and £10; and 1 in which the amount was en £10 and £15. Of the cases tried in the country, there were in which the amount was under £5; 3,999 in which it was en £5 and £10; and 2,097 in which it was between £10 and £30.

LICENSING COURTS.

the metropolitan district of the colony the Licensing Court for le of intoxicants consists of the Stipendiary Magistrates, with ldition of a Justice of the Peace especially appointed for the e, bringing the number of occupants of the Bench up to seven, of whom form a quorum; while in the country districts the Police Magistrate and two Justices of the Peace, also specially ted, constitute the Court. There has been an absolute decrease number of licensed public-houses in the metropolitan district 1881, attributable to the operations of the Licensing Act, which into force in that year. In the succeeding year the number of d houses in the metropolitan area was 940, and in the country ts, 2,123; fourteen years later the numbers were 789 and 2,387 tively—a decrease equal to 16·1 per cent. in the metropolis, and rease in the country districts of 12·4 per cent. The following gives particulars respecting the number of public-houses, and the e number of residents to each :—

.	Number of Licensed Houses.			Average number of Residents in District to each House.		
	Metropolitan	Extra-Metropolitan.	Colony.	Metropolitan	Extra-Metropolitan	Colony
3	858	2,510	3,368	389	379	308
)	856	2,549	3,405	411	280	313
)	853	2,575	3,428	434	284	321
l	847	2,594	3,441	471	295	339
2	834	2,607	3,441	994	301	348
3	812	2,558	3,370	513	310	359
4	795	2,495	3,290	531	327	376
5	793	2,445	3,238	525	347	391
5	789	2.387	3.176	519	368	405

The following table, giving the number of licenses current dur each of the last six years for the sale of the wines of the colony, will found interesting :—

Year.	Metropolis.	Country.	Total.
1891	192	298	490
1892	215	291	506
1893	241	270	511
1894	233	267	500
1895	271	273	544
1896	266	295	561

PATENTS.

The law relating to the registration of inventions and improveme has been in force since 1853, but it is only within recent years that provisions of the Act have been availed of to any great extent. 1879 and 1887 the law was amended and the fees reduced to nominal sum of £5 for complete Letters Patent, and £2 for a C tificate of Provisional Protection, which latter may, if application made within twelve months from its granting, be converted i a patent on the payment of an additional £3. The result has b that the business of the Patent Office has greatly increased. T inventions registered in 1895 were for the most part not local b foreign, and this feature has marked the operations of the Pat Office since its inception. The following is the number of pate and assignments thereof for inventions or improvements register from 1855 to 31st July, 1887, under Acts 16 Vic. No. 24 and 42 V No. 27 :—

Year.	Number of Registrations.		
	Patents.	Assignments.	Total.
1855–59	26	......	26
1860–69	173	27	200
1870–79	426	137	563
1880–87	1,164	189	1,363
Total to 31st July, 1887	1,789	353	2,142

The following have been granted under Act 51 Vic. No. 3:—

Year.	Letters Patent.	Letters Patent to supersede certificates.	Certificates of Provisional Protection.	Assignments.	Licenses.
*1887	225	12	183	15	......
1888	490	75	252	58	......
1889	518	89	278	84	3
1890	494	105	274	100	2
1891	540	101	252	111	3
1892	496	82	208	105	8
1893	366	77	240	113	19
1894	410	81	310	80	44
1895	478	88	301	104	17
1896	545	111	314	91	12

* From 1st August to 31st December.

The numbers of certificates of Provisional Protection and Letters Patent applied for since the amending Act became law on the 1st August, 1887, are 2,612 and 4,562 respectively, and during 1896 the totals were 314 and 545, while 91 assignments were registered during the latter period. In addition to these, 111 Letters Patent to supersede Certificates and 12 Licenses were registered in 1896. The countries from which applications for certificates of Provisional Protection and Letters Patent in New South Wales were received are as follow:—

Country.	Registered during 1896.	Total registered since the 1887 Act became law.	Country.	Registered during 1896.	Total registered since the 1887 Act became law.
Australasia—			France	8	58
New South Wales	295	2,955	New Caledonia	....	3
Victoria	157	1,416	Germany	15	92
Queensland	20	162	Hawaiian Islands	....	2
South Australia	38	255	Italy	2	3
Western Australia	6	15	Japan	....	1
Tasmania	6	29	Portugal	....	2
New Zealand	89	438	Russia	1	9
United Kingdom	142	1,099	Transvaal	2	8
anada	2	34	Spain	....	1
ape Colony	....	3	Cuba	....	1
iji	....	1	Sweden	6	23
ndia	....	2	Norway	....	1
rgentine Republic	....	2	Switzerland	....	2
ustria	....	15	United States	66	523
elgium	2	12			
enmark	2	7	Total	859	7,174

It will thus be seen that out of the total of 7,174 applications under the present Act, 2,955, or over 41 per cent., were made by persons residing in the colony, though not necessarily for inventions perfected in New South Wales.

COPYRIGHT.

The Copyright Act in force in this colony was passed on the 14th May, 1879, and became law on the 1st July, 1879. The Act is divided into four parts, dealing with the following subjects :—Part I. Literary, Dramatic, and Musical Works ; Part II. Fine Arts ; Part III. Designs ; Part IV. Miscellaneous Provisions.

Part I provides for the registration of copyright in books or publications, as understood in the widest sense of the term, and for every new edition containing any alterations in the matter ; and also for the registration of playright, or the right of representing or performing dramatic or musical productions, whether previously printed and published or not. In this colony copyright is registered only for works first published here, and it commences to run on first publication, representation, or performance ; but no remedy can be obtained or legal proceedings taken for anything done before registration. The term of protection is 42 years, or the life of the author plus 7 years, whichever is the longer period. Nothing blasphemous, seditious, immoral, or libellous is entitled to be registered, nor any mere advertisement. Literary works for which registration is sought must be submitted to the Registrar in a complete state as published ; but dramatic or musical works may be in manuscript, which is returned. One of the best copies issued of the first and each subsequent edition of every printed "book" published in the colony must, within two months of publication, be delivered to the Public Library of New South Wales and to the Librarian of the University of Sydney. The penalty for default in delivering library copies is forfeiture of the value of the book and a sum not exceeding £10. Library copies must be delivered whether the book is registered or not. Lectures receive protection without being registered, on compliance with the requirements of the Act ; but lectures are public property if delivered in any University, Public School, or College, or on any public foundation, or by any individual by virtue of or according to any gift, endowment, or foundation. The registration fee is 5s. ; and the fee for a copy of entry, whether required by the proprietor or anyone else, is 3s.

Part II gives copyright in paintings, drawings, works of sculpture, and engravings, including the design thereof, for 14 years, and in photographs and the negatives thereof, for 3 years. The fees to be paid are :— 1s. for photographs and their negatives and for chromographic cards, 5s. for other subjects, and 3s. for copies of entry. Copyright in a work of fine art which has not been executed under commission does not of necessity either follow the work or remain with the artist, but ceases to exist, unless it has been secured by agreement between the parties, signed at or before the time of the sale or disposition of the original. To entitle a work to copyright it must be new and original, and must have been executed in the colony.

Part III. Under this part of the Act protection can be obtained for new and original designs, not previously published in this colony or elsewhere, such designs being applicable to articles of manufacture or works of art, whether intended for purposes of utility, ornament, or otherwise. The protection does not extend to the article itself, but only to the design thereof; consequently, it does not apply to any mechanical action, principle, contrivance, application, or adaptation, or to the material of which the article is composed. The substances to which designs may be applied are for registration purposes divided by the Act into fourteen classes, two years' protection being assigned to some classes, and three years to others. The design must be applied within the colony. The registration fee is 10s., and registered designs must bear a registration mark. If protection is required in more classes than one, it can only be secured by simultaneous registration.

Part IV contains general provisions, and amongst other matters declares copyright to be personal property, assignable at law, and transmissible by bequest, and subject in case of intestacy to the same law of distribution as other personal property.

The Copyright Law of England is comprised chiefly in some fourteen Acts of Parliament, of an unusually obscure and conflicting character, and is extensively elaborated by judicial decisions. Under the "International Copyright Act, 1886," 49 & 50 Vic. c. 33, and the Orders in Council thereunder, the greater part of this body of law, together with the terms of the Copyright Convention of Berne, is made reciprocally applicable to Great Britain and each of her Dependencies, and to the countries that are parties to the Convention, with their colonies, namely:—Germany; Spain, with her colonies; France, with her colonies and Algeria; Great Britain, with her colonies and possessions; Belgium, Haiti, Italy, Switzerland, Luxemburg, Monaco, Montenegro, and Tunis—previous copyright treaties being for the most part abrogated.

Copyright when registered in a foreign country is covered by the local law within that country, and by the International Copyright Acts and the Convention thereunder, within the British Dominions, and *vice versa*.

Literary matter published in any part of the British Dominions may now be protected by copyright throughout the whole Empire, by registering the work in the country of origin if there is a local Registry, or at the London Office if there is not. Proprietorship in registered Colonial copyright can be asserted in any Court in the Empire by producing a copy of entry issued by the Copyright Office of the country of origin, and authenticated by the Governor or proper Minister of that country.

The registrations of copyright effected in New South Wales have been :—

	During 1896.	From the passing of the Act in 1879 to 31st December, 1896.
PART I. *Literature* :—		
Printing and publishing right—		
Books	52	602
Periodicals	6	205
Music	11	125
Playright—		
Drama	4	57
Music	....	10
Total	73	999
PART II. *Fine Arts* :—		
Painting	....	67
Drawing	7	62
Sculpture	....	8
Engraving	2	155
Photography	12	635
Total	21	927
PART III. *Designs*.—Useful, Ornamental, or otherwise	18	422
Grand Total	112	2,348

The yearly receipts from registration of copyrights do not usually reach £40. The highest sum in any year was £60 2s. in 1887, and the lowest £25 13s. in 1889. During 1896 a total sum of £41 12s. was received under the following heads :—Literature, £28 2s.; Fine Arts, £3 10s.; and Design, £10.

FOOD, COST OF LIVING, AND PRICES

Food Supply.

THE soil of New South Wales is capable of producing in abundance most of the things essential for the sustenance of human life, though the production of some of these necessaries has been almost entirely neglected, while others are obtained in quantities insufficient for the wants of the community. Considering the comparatively high rate of wages which prevails, food of all kinds is fairly cheap, and articles of diet which in other countries are almost within the category of luxuries are in New South Wales largely consumed even by the poorest classes.

The cost of providing food, and beverages other than intoxicants, consumed in the colony during the year 1896 may be set down at £16,239,100. This sum represents the price to the consumer, and covers all charges except that of cooking and preparing the food for the table. The expenditure on wines, spirits, and beer amounted to £4,063,000, so that the total expenditure for all food and beverages was £20,302,100, equal to £15 15s. 4d. per inhabitant, or 10·3d. daily. Excluding intoxicants, the yearly expenditure per inhabitant was £12 12s. 3d., and the average per day, 8·3d. Compared with the cost of food supply in other countries, this sum will not appear considerable, especially when allowance is made for the profusion with which flesh meat is consumed and wasted in New South Wales. The following figures are taken from Mulhall's *Dictionary of Statistics*, and show the annual expenditure per head of the more important European countries and of the United States and Canada :—

Country.	Per Inhabitant.			Country.	Per Inhabitant.		
	£	s.	d.		£	s.	d.
United Kingdom ...	14	4	9	Norway...............	9	15	0
France	12	4	5	Denmark	11	14	0
Germany	10	18	5	Holland...............	10	8	0
Russia..................	5	19	7	Belgium	12	3	1
Austria	7	17	4	Switzerland	8	11	7
Italy	6	4	10	Roumania............	6	10	0
Spain	8	9	0	Servia	6	10	0
Portugal...............	7	3	0	United States	9	17	7
Sweden	9	18	11	Canada	8	9	0

There has been a falling off in the value of the articles of food consumed in New South Wales during the last few years, due both to a decrease in the quantities consumed and to a fall in prices. As late as 1892 the value of food and beverages consumed amounted to 12½d. per head daily, or exclusive of intoxicants, to 10d.; while in 1896 these amounts had fallen to 10¼d. and 8¼d. respectively.

The main articles of consumption in the colony are meat and bread, the retail value of which equals about 41 per cent. of the total expenditure on food. The following is the approximate retail cost of the chief articles which enter into daily consumption :—

	£
Bread	2,412,100
Fresh meat	4,274,200
Vegetables and fruits	2,092,700
Milk, butter, cheese, etc.	2,955,400
Other farm produce	1,071,700
Sugar	1,398,200
Tea, coffee, etc.	793,100
Other foods and non-alcoholic beverages	1,241,700
Total expenditure on food	16,239,100
Wines, beer, and spirituous liquors	4,063,000
Total expenditure on food and beverages	£20,302,100

The quantities of the principal articles of diet annually required by each member of the community are estimated to be as follow :—

Flour			250·0 lb.
Oatmeal			8·7 ,,
Rice			11·2 ,,
Meat	Beef	156·3 lb.	278·4 ,,
	Mutton	108·4 ,,	
	Pork, &c.	13·7 ,,	
Potatoes			204·5 ,,
Sugar			91·3 ,,
Butter			17·6 ,,
Cheese			5·9 ,,
Tea			8·3 ,,
Coffee			9·0 oz.
Cocoa and chocolate			7·1 ,,

For the year 1897 the total demand of the colony for the above classes of food will be approximately :—

Flour		178,400 tons.	Sugar	53,300 tons.
Oatmeal		5,100 „	Butter	10,200 „
Rice		6,500 „	Cheese	3,400 „
Meat	Beef	91,200 „	Tea	11,152,500 lb.
	Mutton	63,200 „	Coffee	725,500 „
	Pork and bacon	8,000 „	Cocoa and chocolate	580,200 „
Potatoes		118,500 „		

The production of wheat in the colony is now nearly equal to the demands of the population. Based on the average yearly consumption of 5·9 bushels per head, the demand of 1897, exclusive of seed, will be about 7,737,000 bushels, the difference nearly equalling the requirements for seed.

Oatmeal and rice are the only other articles of cereal produce largely consumed. Rice is not grown to any extent in the colony, and the quantity required is imported either directly or indirectly from China and India. The land adapted for the growth of this plant in New South Wales is not very extensive in area, and is probably put to better use. Oatmeal, though manufactured in the colony, is also largely imported.

In the matter of meat supply the colony is almost independent of external assistance. The consumption of fresh meat of all kinds is extremely great, and, though possibly less than in the neighbouring colony of Queensland, it exceeds per head that of any other country. The requirements of the colony for food alone amounted in 1896 to 316,408 head of cattle, and 3,107,273 head of sheep; and though the supply of cattle sufficient to meet the demand was beyond the resources of the colony, the number of sheep available for market very largely exceeded even the number given above, and were it not that beef is preferred to mutton, no stock need have been imported for slaughtering.

The swine slaughtered for food during 1896 numbered 90,781. The quantity of bacon and hams made, according to the returns collected, was 5,303,763 lb., and the quantity imported for local requirements during the year was 1,012,757 lb. The annual consumption per head of pork and its manufactured products, averages about 13·7 lb.

The amount of potatoes imported for local consumption during 1896 was 41,117 tons, while the quantity available from the fields of the colony, after allowing for seed, was 51,504 tons. The net imports amounted, therefore, to 44 per cent. of the total consumption, as compared with 37 per cent. in 1895; and 28 per cent. in 1894.

The consumption of sugar in the colony is enormous, averaging about 91·3 lb. per head during each year. The fields of the colony produced during 1896 about 25,458 tons, or 35,266 tons short of the local demand, the bulk of which was imported from Queensland. As pointed out in the pages relating to agriculture, a large part of the colony is well adapted to the growth of sugar-cane; but the low price which sugar brought some few years ago, when the market was affected by the bounties given by Germany and France, made the industry unprofitable, and the cultivation of cane was, to some extent, neglected. The considerable rise in the price of sugar during 1889 led to an increase of cultivation over that of the previous year, and this was followed by further extensions in the succeeding five years, but the area under cane could still be increased 58 per cent. before the production of sugar would equal the local demand.

The year 1890 proved very encouraging to the dairy farmers, and the quantity of butter and cheese manufactured was sufficient to meet local wants, and leave a small balance for export. The production of the succeeding season did not, however, equal the demand, as 1,419,400 lb. of butter and 224,397 lb. of cheese were imported for local requirements. In 1892, there was a surplus of 1,027,800 lb. of butter for export, while cheese to the amount of 53,700 lb. had to be imported to meet local requirements. Since then the production of butter and cheese has increased very rapidly, and in 1894 there were 4,600,000 lb. of butter and 229,000 lb. of cheese available for export; but owing to the dry seasons the quantities available for export in 1895 and 1896 were comparatively small. The consumption of butter and cheese during 1896 was 25,281,000 lb. and 4,970,000 lb. respectively.

The quantity of tea consumed is remarkably large, the average being 8 lb. 3 oz. per inhabitant, while of coffee the average consumption is 9 oz. The consumption of tea is universal throughout the colonies, and the four million people in Australasia use fully twice the quantity of this beverage which is consumed by the millions who inhabit continental Europe, other than Russia. Though the soil and climate of a part of New South Wales are adapted to the cultivation of tea, no systematic attempt has been made to grow this plant. The coffee berry, especially the Liberian variety, thrives in the north coast district, but it has not yet been cultivated for commercial purposes.

The average quantity of the principal articles of common diet is given herewith for the various colonies of Australasia. It will be seen that the consumption of wheat varies from 338·2 lb. in Victoria to 455·5 lb. in New Zealand, the average consumption being 378·5 lb. per head. Rice varies greatly in the quantity used, only 7·7 lb. being the consumption of Victoria, as against 20·8 lb. in Western Australia. The consumption of tea is largest in Western Australia, New South Wales, and Queensland —with 10·2 lb. in the first, and 8·3 lb. in each of the two last-named colonies. Of sugar, the average quantity used is 117·3 per head in Western Australia, and 91·3 lb. in New South Wales. Coffee is not a favourite beverage in Australasia, the consumption being only one-eleventh that of tea. It is used most largely in Western Australia, where the annual demand amounts to 19·2 oz. The particulars for each colony are as follow :—

Article.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.	Australasia.
Grain—								
Wheat ....lb.	360·0	338·2	346·1	380·0	380·0	393·3	455·5	378·5
Rice ....lb.	11·2	7·7	18·6	11·8	20·8	8·2	8·7	10·6
Oatmeal ....lb.	8·7	7·3	4·4	4·5	6·4	...	...	7·2
Potatoes ....lb.	204·5	301·3	169·9	172·1	132·9	547·7	423·1	275·7
Sugar ....lb.	91·3	94·5	114·0	94·1	117·3	84·5	83·0	93·5
Tea ....lb.	8·3	7·4	8·3	7·7	10·2	6·6	6·6	7·7
Coffee ....lb.	0·6	0·9	0·5	1·1	1·2	0·4	0·5	0·7
Cheese ....lb.	5·9	3·2	3·7	...	...	...	4·5	4·5
Butter ....lb.	17·6	12·6	10·3	...	...	...	18·5	15·2
Salt ....lb.	42·0	19·4	50·3	10·8	15·9	18·7	33·1	30·8
Meat—								
Beef ....lb.	156·3	133·3	280·0	...	...	153·5	90·0	145·3
Mutton ....lb.	108·4	86·1	90·0	...	...	107·3	110·0	97·9
Pork and Bacon......lb.	13·7	11·0	...	...	..	17·7	...	12·7

The consumption of potatoes per head in some of the colonies is probably less than the foregoing table shows; thus in the case of Tasmania the returns show a consumption of 548 lb., and in New Zealand, of 423 lb. It is probable that potatoes are in some years grown in excess of the local requirements, and the market in New South Wales and other continental colonies not being sufficient to absorb this excess, it remains unconsumed or is given to live stock and poultry. Under the circumstances, it is impossible to determine the quantity actually entering into the food consumption of the population.

The consumption of salt appears excessive in some of the colonies, while the figures for South Australia seem too low. This may be explained by the fact that large quantities of salt are used in meat preserving, notably in New South Wales, Queensland, and New Zealand; while in South Australia salt, taken from lagoons, is manufactured into table salt in considerable quantities, of which there is, however, no record. Probably the quantity required for domestic consumption averages about 20 lb. in each colony.

Judged by the standard of food consumed, the people of New South Wales, as well as of all the other colonies of Australasia, are fortunately situated. Compared with those of other countries, this will most clearly appear from the following table, the particulars given in which, with the exception of those referring to New South Wales, have been taken from Mulhall's *Dictionary of Statistics* :—

Country.	Per Inhabitant.								Daily Energy—Foot Tons.
	Grain.	Meat.	Sugar.	Butter and Cheese.	Potatoes.	Salt.	Tea.	Coffee.	
	lb.	lb.	lb.	lb.	lb.	lb.	oz.	oz.	
United Kingdom	378	109	75	19	380	40	78	13	3,739
France	540	77	20	8	570	20	0·5	62	3,993
Germany	550	64	18	8	1,020	17	1·2	76	4,708
Russia	635	51	11	5	180	19	11	2	3,532
Austria	460	61	18	7	560	14	0·4	26	3,502
Italy	400	26	8	4	50	18	...	18	2,132
Spain	480	71	6	3	20	17	0·2	·5	2,597
Portugal	500	49	12	3	40	17	2	9	2,659
Sweden	560	62	22	11	500	28	0·6	110	4,012
Norway	440	78	13	14	500	40	1·5	110	3,627
Denmark	560	64	22	22	410	25	6	110	4,071
Holland	560	57	35	15	820	20	19	322	4,635
Belgium	590	65	27	15	1,050	...	0·4	158	5,034
Switzerland	440	62	26	11	140	...	1·6	110	2,766
Roumania	400	82	4	9	80	...	...	8	2,414
Servia	400	84	4	9	80	...	...	8	2,422
United States	370	150	53	20	170	39	20	142	3,415
Canada	400	90	45	22	600	40	61	7	4,013
New South Wales	380	278	91	24	205	42	143	9	5,180

Taking the articles of the foregoing list, with the exception of tea and coffee, and reducing them to a common basis of comparison, it will be found that the amount of thermo-dynamic power capable of being generated by the food consumed in this colony is greater than that of any other country mentioned in the table. For the purpose of comparison, the figures of Dr. Edward Smith, F.R.S., in his well-known work on Foods, have been used, and the heat developed has been reduced to the equivalent weight lifted 1 foot high. In estimating the thermodynamic effect of food, grain has been reduced to its equivalent in flour, and regard has been paid to the probable nature of the meat consumed. The figures for potatoes are given as they appear in the *Dictionary of Statistics*, but it is a probable supposition that but a small proportion of the quantity over 400 ℔. set down for any country is required for human consumption, and the figures relating to some of the countries are, therefore, excessive. The substances included in the table are largely supplemented both in America and in Europe by other foods, but not more so than in these colonies; and the figures given will probably afford a just view of the comparative quantity and food-value of the articles of consumption in each of the countries mentioned. The comparison will appear much more strongly in favour of these colonies when the average amount of work which each individual in the community is called upon to perform is taken into consideration. In Australasia the proportion of women and children engaged in laborious occupations is far smaller than in Europe and America, and the hours of labour of all persons are also less, so that the amount of food-energy required is reduced in proportion.

It must be admitted that the method of comparison adopted in the foregoing table is not entirely satisfactory, as the different functions of various kinds of food have not been considered. Experiments and observations made in Europe show that a standard may be set up by which the amount of nutrients required to maintain different classes of people may be measured. Professor Voit, of Munich, whose authority is accepted by European specialists, has ascertained that to sustain a labouring man engaged in moderately hard muscular work are required 118 grams of protein, and quantities of carbohydrates and fats, sufficient with the protein to yield 3,050 calories of energy. There are 454 grams in a pound avoirdupois, and the calorie is the amount of heat that would raise the temperature of 4 ℔. of water one degree Fahrenheit. Applying the ascertained values of the various foods, the consumption of which has just been given, it will be found that the daily consumption per inhabitant is equivalent to 115 grams of protein and 3,494 calories, or about the quantity Professor Voit declares to be sufficient for a labouring man. If allowance be made for the fact that only 40 per cent. of the population are adult males, 33 per cent. women, and 27 per cent. children, the quantity of food consumed in New South Wales would appear to be far in excess of the actual requirements of the population, and though the excess may be looked upon as waste, it is none the less evidence of the wealth of the people whose circumstances permit them to indulge in it.

The following table gives the annual consumption of tobacco in Australasia and the principal countries of the world. The use of tobacco appears to be more prevalent in Western Australia and New South Wales than in any of the other colonies, while the least consumption is in Tasmania and South Australia. Compared with other parts

of the world, the average consumption of Australasia will not appe
excessive :—

Country.	lb.	Country.	lb.
Australasia—		Austria-Hungary	3·77
New South Wales	3·38	Italy	1·34
Victoria	3·01	Spain	1·70
Queensland	2·83	Holland	6·92
South Australia	1·94	Belgium	3·15
Western Australia	3·82	Switzerland	3·24
Tasmania	2·02	Sweden	1·87
New Zealand	2·09	Denmark	3·70
United Kingdom	1·41	Turkey	4·37
France	2·05	United States	4·40
Germany	3·00	Canada	2·11
Russia	1·23	Brazil	4·37

CONSUMPTION OF INTOXICANTS.

The consumption of wines, spirits, and fermented liquors has be decreasing for some years, as will be seen from the following statemen showing the average consumption of spirit per inhabitant during th past ten years :—

	Gallons.		Gallons.
1887	2·97	1892	2·67
1888	2·88	1893	2·30
1889	2·73	1894	2·17
1890	2·68	1895	2·08
1891	2·83	1896	2·10

These figures represent the amount of alcohol contained in the liquo consumed ; the quantities are given in proof spirit as being a measur more easily understood, if less scientific, than that of absolute alcohol.

The state of things depicted in the foregoing table is due to a com- bination of causes. Four of these are most notable—the more stringent provisions of the Licensing Act, the decrease in the proportion of rougher labourers to the general community, the depression in trade and, lastly, the spread of teetotal principles. It would be futile to attempt to determine how these causes have operated individually in decreasing the consumption of intoxicants ; but the fact of such a decrease cannot be gainsaid, for the direct evidence given above is corroborated by the general decline in the number of arrests on charges of drunkenness.

The volume of spirits consumed in the colony during 1896 wa 8,013 gallons of locally distilled, and 933,702 gallons of imported spirit in all 941,715 gallons, equal to 0·73 gallons per head—a quantity quite two-thirds of the consumption during the year 1887, as will appear from the following table:—

Year.	Quantity Consumed.		Year.	Quantity Consumed.	
	Total.	Per Inhabitant.		Total.	Per Inhabitant.
	gallons.	gallons.		gallons.	gallons.
1887	1,136,863	1·11	1892	1,184,042	1·00
1888	1,164,975	1·10	1893	999,984	0·83
1889	1,159,380	1·07	1894	952,170	0·77
1890	1,201,946	1·09	1895	921,468	0·73
1891	1,268,368	1·11	1896	941,715	0·73

The average consumption of beer per head of population has declined considerably during the last ten years. From the following statement, however, it will be found that both the quantity of beer imported and the quantity locally brewed during the year 1896, showed a slight increase on the figures of the previous year, and that the total consumption of the year was higher than that of 1893, 1894, and 1895, but lower than that of any of the first six years of the decennial period:—

Year.	Colonial.	Imported.	Total.	Per Inhabitant.
	gallons.	gallons.	gallons.	gallons.
1887	9,720,000	2,126,000	11,846,000	11·69
1888	9,300,000	2,413,000	11,713,000	11·01
1889	9,515,000	2,514,000	12,029,000	10·89
1890	9,504,000	2,207,000	11,711,000	10·63
1891	10,594,000	2,464,000	13,058,000	11·42
1892	10,688,000	2,201,000	12,889,000	10·91
1893	9,642,000	1,536,000	11,178,000	9·23
1894	9,392,000	1,709,000	11,101,000	8·97
1895	9,708,000	1,629,000	11,337,000	8·96
1896	10,073,000	1,700,000	11,773,000	9·14

The amount of beer drunk in 1887 was 11,846,000 gallons, of which 9,720,000 gallons were the produce of the colony, representing 82·1 per cent. of the total consumption. In 1896 the quantity had fallen to 11,773,000 gallons, of which the proportion locally made was 85·6 per cent. During the same period the consumption per head declined from 11·69 to 9·14 gallons.

The wine entering into consumption in New South Wales is chiefly the produce of its own vineyards; the quantity is, however, much less than might be expected in a country so eminently adapted to vine culture. The consumption per inhabitant is less than one-half of that of Victoria. The quantity of Australian and foreign wines cons during each of the past ten years is shown below :—

Year.	Australian.	Foreign.	Total.	Per Inhabitant.
	gallons.	gallons.	gallons.	gallons.
1887	584,179	161,033	745,212	0·73
1888	625,359	180,502	805,861	0·76
1889	747,435	170,526	917,961	0·83
1890	640,205	161,945	802,150	0·73
1891	788,038	173,541	961,579	0·84
1892	885,250	135,894	1,021,144	0·86
1893	921,579	97,551	1,019,130	0·84
1894	901,156	82,489	983,645	0·79
1895	727,372	80,685	808,057	0·64
1896	707,506	81,561	789,067	0·61

The amount expended upon wines, spirits, and fermented li consumed in the colony during the year 1896 was about £4,063 Of this sum, £2,200,300 was the cost of liquors to the retailer, of £966,800 represents duty, excise, and license fees, and £1,233,50 invoice price of the goods. The cost of working the trade an profits of the merchants and retailers, therefore, came to £1,86 The expenditure on liquors per inhabitant amounted to £3 3s during the year, which, though undoubtedly a large sum, amoun as it does, to 6·9 per cent. of the average income, is neverthele portionately smaller than the outlay in several European coun Although the average per head of population was higher in 1896 in the preceding year, yet there has been a satisfactory decrease in expenditure on intoxicants since 1888, not only in the amount inhabitant but even in the total sum. This will be seen from following table :—

Year.	Expenditure on Intoxicants.	
	Total.	Per Inhabitant.
	£	£ s. d.
1888	4,680,000	4 10 5
1889	4,765,000	4 9 4
1890	4,774,100	4 6 8
1891	4,905,400	4 5 9
1892	4,713,900	3 19 10
1893	4,011,800	3 6 3
1894	3,930,800	3 3 6
1895	3,851,300	3 0 11
1896	4,063,000	3 3 1

The rate per inhabitant and the proportion of income devoted to liquors various countries are given below. The figures should, however, be ken with this qualification, that in several of the countries enumerated uors are consumed principally with meals in place of tea or coffee, so rgely partaken of in English-speaking countries :—

Countries.	Amount per Inhabitant.	Proportion of Income.
	£ s. d.	Per cent.
United Kingdom	2 18 0	8·2
France	1 19 0	7·7
Germany	1 14 0	9·4
Russia	1 0 0	9·9
Austria	1 13 0	10·5
Italy	1 5 0	10·7
Spain	1 5 0	9·1
Belgium and Holland	2 0 0	8·5
Denmark	2 10 0	11·1
Scandinavia	1 6 0	7·7
United States	1 10 0	4·2
New South Wales	3 3 1	6·9

he following table shows the consumption for all the colonies during year 1896. The largest consumption of spirits per inhabitant is Western Australia, Queensland being second. Wine is used most ely in South Australia, Western Australia, and Victoria; and beer Western Australia, Queensland, and Victoria. The average connption of alcohol in all the colonies amounts to 2·29 gallons of proof rit per inhabitant, ranging from 5·44 gallons in Western Australia 1·34 gallons in Tasmania. In Western Australia, of course, there n unusually large proportion of adult males :—

Colony.	Spirits.		Wine.		Beer, &c.		Equivalent in Alcohol (proof) per Inhabitant.
	Total.	Per Inhabitant.	Total.	Per Inhabitant.	Total.	Per Inhabitant.	
	galls.	galls.	galls.	galls.	galls.	galls.	galls.
South Wales	941,715	0·73	789,067	0·61	11,773,323	9·14	2·10
oria	865,937	0·73	1,592,791	1·35	13,468,550	11·43	2·62
enslard	422,859	0·91	280,422	0·60	5,763,137	12·36	2·69
th Australia	143,104	0·40	708,996	1·98	3,276,778	9·13	2·18
tern Australia	263,787	2·21	164,546	1·38	2,634,132	22·03	5·44
nania	61,986	0·38	14,522	0·09	1,175,798	7·19	1·34
Zealand	447,286	0·60	99,477	0·13	5,564,808	7·46	1·60
Australasia	3,146,674	0·73	3,649,821	0·84	43,656,526	10·10	2·29

Taking Australasia as a whole, it compares very favourably with most of the European countries in the quantity of intoxicants annually consumed by each inhabitant, as the following statement shows. The figures are reduced to gallons of proof spirit from data given in Mulhall's *Dictionary of Statistics*, and would look even more favourable to Australasia were the fact of the large preponderance of males over females in these colonies made a feature of the comparison :—

Country.	Consumption.	Country.	Consumption.
	gallons.		gallons.
United Kingdom ...	3·57	Portugal	3·00
France..................	5·10	Holland.............	4·00
Germany..............	3·08	Belgium.............	4·00
Russia........	2·02	Denmark	5·00
Austria	2·80	Scandinavia.........	4·36
Italy.....................	3·40	United States	2·65
Spain	2·85	Australasia	2·29

It is popularly supposed that Australian wines and beers are not heavily charged with spirit as compared with the imported articles. This belief is erroneous. Several descriptions of Australian wines have a natural strength of 30 per cent. of proof spirit, while from analyses recently made it would appear that the strength of these wines offered for sale varies from 24 to 37 per cent. of spirit. On the same authority it was stated that imported beers ranged from 13·88 to 15·42 per cent. in the case of English, and from 9·58 to 11·76 per cent. of proof spirit in Lager ; while the local manufacture varied according to the make from 11·21 to 15·12, the average being 13·75 per cent. It is generally understood, however, that since the imposition of excise duties on colonial beer in 1887 the strength of the article has been somewhat reduced, and does not average more than 13 per cent. of proof spirit.

COST OF LIVING.

The latest complete estimate of the annual expenditure of the people of New South Wales was made for the year 1894. Since that year the conditions have not sufficiently changed to make it necessary to recast the figures then obtained under many of the heads, and in the following estimate most of the figures given are those which were established on the basis of the year 1894 :—

	£
Food and non-alcoholic beverages	16,239,100
Fermented and spirituous liquors	4,063,000
Tobacco	1,207,600
Clothing and drapery	6,567,200
Furniture	477,200
Rent or value of buildings used as dwellings	5,661,200
Locomotion	1,600,100
Fuel and light	1,853,200
Personal attendance, service, and lodging	1,449,700
Medical attendance, medicine, and nursing	1,431,800
Religion, charities, education (not including State expenditure)	753,800
Art and amusement	998,300
Books, newspapers, etc.	758,200
State services, postage, telegrams, succession dues	654,500
Household expenses not included elsewhere	1,949,800
Miscellaneous expenses	1,199,200
Total	£46,863,900

The expenditure for the year given amounted to £36 7s. 10d. per head, or at the rate of 1s. 11¾d. per day. The daily expenditure may be thus distributed :—

Division of Expenditure.	Per day.	Proportion of Expenditure.
	d.	per cent.
Food	8·3	34·7
Clothing and drapery	3·3	14·0
Rent	2·9	12·1
Direct taxes	0·2	0·7
Sundries (including intoxicants)	9·2	38·5
Total	23·9	100·0

According to Mulhall, the expenditure per inhabitant in the leading countries of Europe and in the United States and Canada is as follows:—

Country.	Expenditure per head.	Country.	Expenditure per head.
	£ s. d.		£ s. d.
United Kingdom	29 14 9	Norway	19 0 0
France	23 19 4	Denmark	28 11 5
Germany	20 3 4	Holland	20 17 4
Russia	10 1 11	Belgium	25 8 2
Austria	14 4 9	Switzerland	18 0 0
Italy	11 11 0	United States	32 16 2
Spain	15 12 6	Canada	23 2 2
Portugal	11 5 6		
Sweden	20 8 4	New South Wales	36 7 10

The table just given affords but a partial view of the question of the cost of living; for if the total earnings of the countries above enumerated be considered as an element of comparison, it will be found that few countries approach New South Wales in the small proportion of income absorbed in providing food for the people. The following table, given on the same authority as the preceding, shows that while the actual cost of food and beverage is £15 15s. 4d. in this colony, as against £14 4s. 9d. in Great Britain, the earnings required to pay for this food are not larger proportionately than in the countries which appear most favourably in the table. The number of working days in the year is assumed to be 300, allowing for thirteen days' sickness and fifty-two Sundays:—

Country.	Average annual cost of food and beverage.	Ratio of cost of food to earnings.	Days' earnings equal to annual cost of food.
	£ s. d.	per cent.	days.
United Kingdom	14 4 9	42·2	127
France	12 4 5	44·0	132
Germany	10 18 5	49·1	148
Russia	5 19 7	52·0	156
Austria	7 17 4	50·8	152
Italy	6 4 10	51·2	153
Spain	8 9 0	51·2	154
Portugal	7 3 0	59·1	177
Sweden	9 18 11	45·2	136
Norway	9 15 0	47·6	143
Denmark	11 14 0	36·0	108
Holland	10 8 0	46·0	138
Belgium	12 3 1	43·4	130
Switzerland	8 11 7	45·2	135
United States	9 17 7	25·2	76
Canada	8 9 0	32·5	98
New South Wales	15 15 4	33·3	100

Prices of Commodities.

The area of New South Wales is so extensive, and the population, except on the sea-board, so scattered, that the determination with any exactness of the average prices of the various commodities consumed is a matter of no little difficulty. No attempt has therefore been made to ascertain the average for the colony, and in the following pages the prices refer to the Metropolitan markets alone. For the earlier years the authority of contemporary newspapers has been followed where the official records were obscure or silent, but since 1836 these records have been available, and have for the most part been adopted. The following table exhibits the average prices of eight commodities during each year since 1820 :—

Year.	Bread per 2 lb. loaf.	Fresh Beef per lb.	Butter per lb.	Cheese per lb.	Sugar per lb.	Tea per lb.	Potatoes per cwt.	Maize per bushel.
	d.	d.	s. d.	s. d.	d.	s. d.	s. d.	s. d.
1820	5	5½	2 9	1 1	......	......	7 3	5 6
1821	6	5½	2 8	1 2	......	......	7 3	5 0
1822	5	5½	2 6	1 3	......	......	5 9	4 9
1823	3½	5½	2 2	1 2	......	......	6 1	2 6
1824	5	5½	3 0	1 4	......	......	6 10	4 10
1825	4½	6	2 2	1 5	......	......	8 4	5 6
1826	5½	5½	2 4	0 10	......	......	9 0	4 0
1827	4½	6¼	2 3	1 1	......	......	8 0	5 0
1828	6	5	2 6	1 4	......	......	18 6	9 0
1829	7	6	1 10	1 1	......	......	12 6	7 9
1830	4½	3½	1 0	0 11	3½	2 6	8 0	3 10
1831	4	4½	1 8	0 6	3½	2 6	5 0	3 8
1832	5	5	2 3	0 7	3½	2 6	5 0	4 7
1833	4	3½	1 5	0 6	3½	2 6	10 0	2 11
1834	5	4	1 6	0 6	3½	2 6	14 0	4 4
1835	4	3½	1 10	0 5	3½	2 6	10 0	4 6
1836	5½	3	1 9	0 8½	3½	2 6	7 0	6 9
1837	3	4½	1 9	0 7½	3½	2 6	10 0	4 2
1838	5	4½	1 6	0 8½	3½	2 6	10 6	3 7
1839	11½	3	2 6	1 1	3½	2 6	11 0	9 0
1840	7½	4½	2 0	1 0	3½	2 6	9 6	5 3
1841	4¼	4½	2 6	0 10	3½	2 6	12 0	2 10
1842	5	3½	2 6	1 1½	3¼	2 6	14 6	4 9
1843	3½	2½	1 9	0 9	3	2 6	10 0	2 9
1844	2½	2	1 5	0 4½	2½	1 5	4 6	1 5
1845	2½	2½	1 6	0 6	3	1 6	4 6	2 11
1846	3½	2¼	1 8	0 6	4	2 3	6 2	4 1
1847	3½	2	1 2	0 7	4	2 4	5 6	2 1
1848	3½	2	1 1	0 8	3¾	2 0	6 0	1 8
1849	2½	1¾	1 2	0 6¼	3¾	1 9	6 2	3 9

Year.	Bread per 2 lb. loaf.	Fresh Beef per lb.	Butter per lb.	Cheese per lb.	Sugar per lb.	Tea per lb.	Potatoes per cwt.	Malt per bushel
	d.	d.	s. d.	s. d.	d.	s. d.	s. d.	s. d.
1850	4½	1¾	1 3	0 7	3½	1 10	7 0	4 1
1851	5	2¾	1 3	0 7	3½	1 4	6 0	3 7
1852	4½	3	1 3	0 7	3½	1 4	6 0	3 11
1853	6½	3½	1 5¼	0 7¼	3½	1 4	13 0	9 3
1854	7½	4½	2 3	0 9	5	2 6	18 6	10 0
1855	9	6	2 4	1 3	7	2 5	21 4	8 7
1856	7½	3½	1 11	1 2	5½	2 2½	10 0	3 8
1857	5	3½	2 0	1 0	7½	2 6	14 6	8 2
1858	6	4	2 0	1 0	7	2 6	15 6	6 5
1859	6	4	1 10	1 0	5	2 6	8 0	3 5
1860	6½	4	1 6	1 10	5½	2 3	7 6	2 10
1861	6½	3	1 8	0 9	5½	2 4	7 3	5 1
1862	4½	4½	2 3	0 9	4½	2 0	8 0	5 0
1863	4	4¼	1 6	0 10	4½	2 0	7 0	3 10
1864	5½	4	1 6	0 8	4½	2 0	5 0	3 11
1865	7½	3	1 9	0 9	4½	2 0	8 0	3 7
1866	6½	3	1 3	1 0	4	2 6	6 0	4 1
1867	3½	2½	1 6	0 7½	4	2 0	7 0	2 5
1868	4	3½	1 3	0 9	4	2 0	9 0	2 11
1869	3½	2	1 6	0 6	4	2 0	4 0	3 8
1870	3½	3½	1 3	0 6	4	2 0	5 0	3 4
1871	3½	2¼	1 3	0 7½	4	2 3	4 0	3 0
1872	3½	2½	1 0	0 9	4	1 9	5 0	2 2
1873	4	2½	1 3	0 5	4	1 9	3 6	3 1
1874	3½	4	1 7	0 6	4	1 9	4 9	4 6
1875	3	3½	1 3	0 9	4½	1 9	5 6	4 3
1876	3½	5½	1 3	0 7	4	1 9	4 9	3 1
1877	4	4½	1 6	0 6	4	2 0	4 9	3 4
1878	4	4	1 3	0 6	4	1 9	5 10	4 0
1879	3½	4	0 10½	0 6	3½	1 6	6 0	3 1
1880	3	3½	0 10	0 7	4	2 0	4 3	2 6
1881	3½	3½	0 10½	0 6½	3½	2 0	4 0	3 7
1882	4	4½	1 3	0 8	4	2 0	5 6	5 4
1883	3½	4	1 4	0 10	4	2 0	6 0	4 0
1884	3	4½	1 3	0 9	3½	1 6	6 6	5 0
1885	3	4½	1 9	1 0	3	1 9	5 6	3 11
1886	3½	4½	1 9	1 1	3½	1 9	6 3	3 9
1887	3½	4	1 4	0 10½	3½	1 9	5 0	3 11
1888	3	4	1 7	0 8½	3½	1 6	6 0	3 4
1889	3½	3	1 4	0 9	3¼	1 6	9 0	3 7
1890	3½	4	1 0	0 8	3½	1 6	6 0	3 10
1891	3½	4	1 1	0 9	3¼	2 0	5 0	2 11
1892	3½	4	1 3	0 8	3	1 6	5 6	3 4
1893	3¼	4	1 1½	0 8	2½	1 6	6 4	4 0
1894	2¾	3	1 0	0 8	2½	1 6	4 6	2 6
1895	2¾	3	1 0	0 8	2½	1 6	4 3	2 9
1896	3	3	1 0	0 8	2½	1 6	5 6	2 7

The most noteworthy feature of the history of prices in the colony—the great range of some of the commodities during the year—is not disclosed by the foregoing table. This variation is most noticeable during the early years, and amongst articles of local production, and was the result of the almost complete isolation of the colony from the markets of the world. Prior to the discovery of gold, communication by letter with the outside world was at best uncertain, and as late as 1878 the regular mails were made up but once a month. The establishment of telegraphic communication, amongst other results, has had a marked effect on prices, so that except in rare instances, and for goods produced in excess of the demand, the production of Australia no longer determines the prices of goods required for the local markets. Exception must, of course, be made for perishable produce, which is still liable to a great range in price during the course of a single year, as will be shown by some examples hereafter given.

Potatoes have varied in price from year to year. The lowest average for a whole twelvemonth was 3s. 6d. per cwt. in 1873, and the highest was 21s. 5d. in 1855, shortly after the discovery of gold; and it may not be without interest to note that from 1853 to 1855 the price of potatoes was extraordinarily high. Commencing with the year first named, the averages were 13s., 18s. 6d., 21s. 4d., 10s., 14s. 6d., and 15s. 6d. per cwt. With regard to the variation in a single year, the following examples may be cited:—In 1820, from 4s. 6d. to 10s. per cwt.; in 1825, from 4s. to 12s.; in 1829, from 9s. to 26s.; in 1834, from 9s. to 19s.; in 1839, from 7s. to 25s.; in 1854, from 11s. to 24s.; in 1856, from 3s. to 11s.; and in 1888, from 2s. to 24s.

The price of maize has not been subject to very great fluctuation, since, being little used except for horse-feed, this grain is capable of being replaced by other products; nevertheless the prices have ranged from 1s. 5d. in 1844 to 10s. in 1854.

In the list given on page 825 are included quotations for bread at per 2 lb. loaf. In most years the price varied somewhat regularly with that of wheat. There are, however, exceptions to this rule, chiefly in the years during which wheat brought an unusually high figure, when the price of bread was generally less than might have been expected. The lowest price at which bread has been retailed was 2½d. in 1849, and the highest was 14d. the 2 lb. loaf, which figure was paid for a short time in 1839.

In addition to the eight commodities which are given on page 825, the following list of the average retail prices of articles largely used may not be without interest. The information begins with 1836, beyond which year it is difficult to determine the exact average.

Year.	Bacon per lb.	Eggs per doz.	Rice per lb.	Oat-meal per lb.	Coffee per lb.	Salt per lb.	Beer (Col.) per gal.	Soap per lb.	Starch per lb.	Tobacco per lb. (Col.)	Tobacc per lb. (imp.)
	s. d.	s. d.	d.	d.	s. d.	d.	s. d.	d.	s. d.	s. d.	s. d.
1836	...	2 2	9	...	...	...	...	4½	...	...	3 3
1837	...	2 6	...	...	1 6	1	1 0	...	...	...	4 0
1838	...	4 0	...	...	...	...	...	...	...	...	...
1839	...	3 0	...	...	1 6	...	...	4½	...	...	3 3
1840	0 10	2 9	...	...	1 4	...	...	4½	...	...	3 3
1841	0 11	2 3	...	...	1 4	...	...	4½	...	...	3 3
1842	0 10½	1 11	2	...	1 4	1	1 9	4½	...	...	3 6
1843	0 10	2 0	1½	...	0 10	0½	2 3	...	...	1 4	3 6
1844	0 5½	0 11	1¾	...	0 8½	1¼	1 3	3¾	...	1 6	3 6
1845	0 6½	1 1	3	...	0 7½	1½	1 1	3½	...	1 6	4 6
1846	0 9½	1 3	1½	...	0 10	1½	2 0	5	...	1 9	4 6
1847	0 6½	1 1	3¾	6	1 1	1½	3 4	5	1 0	1 9	4 4
1848	0 9	1 3	3½	6	1 1	1½	3 3	5	1 0	1 9	4 4
1849	0 8½	1 1	3¾	5¾	1 0	1½	2 8	5¼	1 1	2 0	4 7
1850	0 8½	1 4	4	6	1 2	1¾	2 9	5½	1 0	2 7	4 10
1851	0 9½	1 8	4	6	1 3	1½	2 6	5¼	1 0	3 8	7 9
1852	1 1	1 6	4	6	1 3	1½	2 6	6	1 0	4 0	8 0
1853	1 2½	2 3	4¼	6	1 3	1½	2 4½	6	1 0	4 0	7 6
1854	1 4½	2 9	5	7½	1 6	2½	3 6	8	1 6	4 0	5 6
1855	0 11½	2 8	6	9	1 8	4	4 7	8	1 6	3 0	5 0
1856	0 10	2 2	5¼	7	1 7¼	3	3 6	7¼	1 1¼	2 6½	5 3
1857	0 9½	1 11	5	7	1 8	2¾	4 0	7	1 0	2 7	5 0
1858	0 7½	2 3	6	7	1 8	4½	4 3	7	1 5	2 6	5 0
1859	0 8½	1 10	4¼	7	1 8	2½	4 0	6½	1 0	2 6	5 0
1860	1 0	1 3	5	6	1 6	2½	3 6	7	1 0	2 3	5 0
1861	0 10	1 6	4	6	1 6	2½	3 6	6	0 10½	2 0	5 6
1862	0 10	1 5	3	5	1 5	1½	2 0	4½	0 8	4 6	6 0
1863	0 10½	1 7	3	4	1 4	1½	1 6	4	0 7	3 0	7 6
1864	0 10	1 6	3	4	1 4	1½	2 0	4	0 8	1 6	5 6
1865	0 9¾	1 6	3	4	1 4	1½	2 0	4	0 8	2 6	5 6
1866	1 0	1 6	4	4	1 4	1½	2 0	4½	0 7	2 6	5 0
1867	0 10	1 7	3½	4	1 4	1	1 6	4	0 7	1 9	4 6
1868	0 9½	1 2	4	4	1 4	1½	2 0	4	0 7	1 9	5 0
1869	0 10	1 3	3	4	1 0	1	1 4	4	0 8	1 0	3 6
1870	0 10½	1 4	3	4	1 2	1	1 4	4	0 7	1 3	3 6
1871	0 9½	1 4	2½	2½	1 0	0½	2 3	3	0 4½	1 0	3 0
1872	0 9	1 1	3	3	1 1	0¾	1 4	3	0 5	1 4	3 6
1873	0 9	1 4	2½	2¾	1 2	0½	2 3	3	0 5	2 0	3 6
1874	0 8¾	1 6	3	3¾	1 4	0½	2 0	2¾	0 6	1 9	3 3
1875	0 9½	1 6	3	3	1 2	1½	3 0	3	0 5	2 0	3 9
1876	0 9	1 0	3	3	1 2	1	2 0	2¾	0 5	1 9	3 0
1877	0 8½	1 6	3	3¼	1 3	1	2 0	2¾	0 5	2 0	3 9
1878	0 9	1 3	3	3	1 3	0½	2 0	2	0 5	1 6	3 9
1879	0 8	1 7	2½	2¼	1 0	0½	2 0	2	0 5	1 6	3 0
1880	0 7½	1 4	3	3	1 5	0¾	2 0	3	0 5½	2 0	4 0
1881	0 7½	1 0	3	3	1 5	0¾	2 0	3	0 5½	2 0	4 0
1882	1 0	2 0	3¼	4	1 5	1	2 0	2½	0 6	3 0	5 0
1883	1 0	1 11	3	4	1 9	1	2 0	3	0 7	3 0	6 0
1884	0 11½	1 11	2½	3	1 4	1	2 0	3	0 6	3 0	5 0
1885	0 10½	1 10	3	3	1 5	0¾	2 0	3	0 6½	3 0	6 0
1886	0 10½	1 8	3¼	2¾	1 6	1	2 0	4	0 6½	4 0	5 6

Year.	Bacon per lb.	Eggs per doz.	Rice per lb.	Oat-meal per lb.	Coffee per lb.	Salt per lb.	Beer (Col.) per gal.	Soap per lb.	Starch per lb.	Tobacco per lb. (Col.)	Tobacco per lb. (imp.)
	s. d.	s. d.	d.	d.	s. d.	d.	s. d.	d.	s. d.	s. d.	s. d.
1887	0 10	1 7	3	2¾	1 6	1	2 0	3½	0 6½	4 0	5 6
1888	0 10½	1 7	3	2½	1 6	1	2 0	3¼	0 6	4 0	5 6
1889	0 11	1 8	3	3¼	1 6	1	2 0	3½	0 6	4 0	5 6
1890	1 0½	1 6	4	3	2 0	1	2 0	3½	0 5	4 0	6 0
1891	0 10	1 6	3	2½	2 0	1	2 0	3½	0 5	4 0	6 0
1892	0 9	1 6	3	2½	1 10	0¾	2 0	3	0 4½	4 0	6 0
1893	0 11	1 6	3	2¼	1 10	0¾	2 0	3	0 4½	4 0	6 0
1894	0 7	1 3	3	2¼	1 10	0¾	2 0	3	0 4½	4 0	6 0
1895	0 7½	1 0	2½	2	1 9	0¾	2 0	2	0 4	4 0	6 0
1896	0 7½	1 0	2	2	1 9	0½	2 0	2	0 4	4 0	6 0

In the quotation of prices in the foregoing tables the figures given are those charged in the shops throughout the metropolitan district. It is quite possible that produce of all kinds may have been bought at cheaper rates than those stated; but the figures will be found to represent the fair average rates, having regard to the class of goods consumed. It is of importance to take into consideration the quality of the produce consumed, for very considerable changes in the direction of improvement have taken place in this respect. Thus, the ordinary sugar now used, and obtainable for about 2½d. per lb., is a good white sugar, whereas some years ago only the commonest quality of moist sugar was found on the tables of the people. A very material improvement has been effected in the quality of flour, a large proportion of the present consumption being roller-made. Salt-butter still forms the bulk of the supply, but it is usually of recent make; while formerly the butter was imported from Great Britain, and was several months old before reaching the dining-table. The candles now used are made of stearine, but the time is not remote when only the common tallow candle was in general use; and so with many other articles of ordinary consumption. The retail prices are those actually paid from day to day, irrespective of the nominal wholesale rates of the commodities in the Sydney markets.

A consideration of retail prices would not be complete without a statement of the price-level in different years. This can be given for foods; but at present the data are hardly sufficient to establish an exact series of price-levels, taking into consideration all the elements of ordinary expenditure. The information in regard to foods is given below, the assumption being made that the quantities entering into consumption were the same formerly as at the present day. This assumption, however, is in some respects erroneous; but there appear to be no other means within reach to effect a just comparison. Sugar, tea, coffee, butter, cheese, and potatoes are now more largely used than (say) prior to 1870; but bread, or other forms in which flour is used, and meat, are not consumed so largely. However, when full allowance is made on this score, the following table will still be found to approximate closely to the truth. The price-level is calculated on the prices ruling for wheat, oatmeal, rice, beef, mutton, bacon, butter, sugar, tea, and potatoes :—

Period.	Price-level of principal Articles of Consumption.	
	1887–96 Prices =1,000.	Prices prior to 1821 =1,000.
Prior to 1821	1,739	1,000
1821 ,, 1837	1,565	900
1838 ,, 1842	1,583	910
1843 ,, 1852	995	572
1853 ,, 1858	1,816	1,044
1859 ,, 1862	1,583	910
1863 ,, 1876	1,226	705
1877 ,, 1886	1,177	677
1887 ,, 1896	1,000	575

Little practical good can be gained by comparing the prices of one period with those of another, unless regard is also paid to the earnings of labour, and as means of comparison are afforded in the chapter of this work dealing with wages, it will be unnecessary to pursue the subject further in this place.

House Rents.

The rents paid for dwellings form a large deduction from the earnings of the manual labour class in any community. Inquiries have been set on foot in order to establish, as far as possible, the relations between wages and rents; but these inquiries have not yet advanced sufficiently to enable an opinion to be expressed in other than general terms. In the city of Sydney dwellings occupied by the labouring classes yield rents as follow :—Three rooms, from 8s. to 9s. per week, or at the rate of 2s. 8d. to 3s. per room; four rooms, from 10s. per week, or 2s. 6d. per room; and five rooms, 12s. per week, or 2s. 4d. per room. Dwellings of more than five rooms are not often occupied by labouring-class families, unless there are grown-up sons and daughters who contribute to the family earnings. In the suburbs of Sydney houses of the kind referred to bring somewhat lower rents, the ratio varying from 2s. to 2s. 6d. per room; while in the provincial towns, except in rare cases, rents are still lower.

Speaking generally, the deduction from a labourer's income for rent amounts to 25 per cent., which, from whatever point it is viewed, must be regarded as excessive. Two circumstances have conjoined to make the rents in the metropolis high—perhaps higher when all things are considered than obtains in any of the other metropolitan cities of

Australasia—the price of land, and the rate of interest expected by property holders. As regards the former, there can hardly be any question that land in and about Sydney was maintained at a fictitious value for many years, and although lower prices for unimproved lands are now ruling, there can be little doubt that prices will fall still further. The interest expected by property holders has been, until recently, from 7 to 10 per cent., free of outgoings. Since 1891 a decided fall has taken place, and a much lower return from house property is now readily accepted. It may be stated in general terms that rents in Sydney and suburbs have fallen by about 25 per cent. during the last five years.

WHOLESALE PRICES.

The average wholesale prices of the principal kinds of milling produce, feed grains, root crops, and fodder, for each month of the year 1896, together with the mean prices for the year, are given in the following statements. The average for the whole year is given irrespective of the quantity sold in each month. In using the table it would be well if this qualification were borne in mind, as the apparent average obtained by dividing the sum of the prices of each month by twelve may, and in some instances does, differ from the true average obtained by taking into account the total sold at each price. The figures given are those quoted by the middlemen, and not those obtained by the producers, which will be found in the chapter of this book dealing with agricultural production.

Month, 1896.	Wheat.		Flour.	Bran.	Pollard.
	Milling.	Chick.			
	Per bushel.	Per bushel.	Per ton.	Per bushel.	Per bushel.
	s. d.	s. d.	£ s. d.	d.	d.
January	4 1¾	3 10	9 13 6	9½	10¼
February	4 4½	3 10½	10 6 10	9	9¼
March	4 5	3 9½	10 6 10	8	8
April	4 3¼	3 7	10 3 2	8¾	8¾
May	4 1	3 4	10 6 0	9¼	9¼
June	4 1¼	3 4½	10 7 6	9	8¾
July	4 1½	3 4½	10 7 6	8	8
August	4 1	3 6½	10 2 6	7¾	7¾
September	3 11½	3 7	10 2 6	7¼	7¼
October	3 11½	3 7	10 9 6	8¼	8
November	4 11	3 8½	10 13 4	9¼	9¼
December	4 9	3 8½	12 18 0	8	8
Mean Prices, 1896	4 3	3 7½	10 13 1	8½	8½

Month, 1896.	Barley.		Maize.	Oats.
	Cape.	English.		
	Per bushel.	Per bushel.	Per bushel.	Per bushel.
	s. d.	s. d.	s. d.	s. d.
January	3 1¼	2 10½	3 4¾	2 5¼
February	3 2½	3 0	3 4¼	2 1¼
March	3 1	2 10¼	2 6½	2 0¼
April	2 11	2 7½	2 2¾	1 11¼
May	2 10¼	2 7½	2 2¼	2 3½
June	2 9¼	2 7½	2 2¼	2 4½
July	2 9	*	2 2	2 3
August	2 9	*	2 0	2 2¾
September	2 8¾	*	1 11½	2 1¾
October	2 8	*	1 11	2 2
November	*	*	2 0¼	2 4¼
December	*	*	1 10¼	2 5
Mean Prices, 1896	2 10½	2 9¼	2 4¾	2 2¾

* No quotations.

The following are the quotations given for root crops, hay and chaff, dairy produce, poultry, and bee produce for 1896:—

Month, 1896.	Potatoes.				Onions.
	Local.	Tasmanian.	Victorian.	New Zealand.	
	Per ton.	Per ton.	Per ton.	Per ton.	Per ton.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
January	6 18 2	6 16 8	5 17 6	6 0 0	7 0 0
February	5 10 4	5 9 4	4 16 8	5 4 0	6 17 6
March	3 11 8	4 0 4	3 10 0	3 15 0	6 17 10
April	3 0 0	3 12 6	*	*	8 2 10
May	2 9 7	3 3 5	*	2 14 4	8 3 2
June	2 4 3	3 1 3	*	2 12 6	7 11 3
July	3 18 4	4 7 0	*	*	7 9 0
August	3 3 2	3 16 10	*	3 6 9	9 7 [illegible]
September	2 11 3	3 5 11	*	3 8 9	12 15 0
October	2 12 0	3 7 6	*	*	15 8 0
November	5 1 5	4 3 2	*	*	11 15 0
December	3 9 2	3 12 6	*	*	6 16 8
Mean Prices, 1896	3 14 1	4 1 4	4 14 9	3 17 4	9 0 4

* No quotations.

Ionth, 1896.	Hay.	Straw.	Chaff.		Lucerne.	Derrick.
			Local.	Imported.		
	Per ton.	Per ton.	Per ton.	Per ton.	Per ton.	Per ton.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
ry	4 11 10	3 19 2	5 1 6	5 8 0	3 5 8	3 12 10
ary	4 7 11	3 7 9	4 13 6	5 ,0 0	3 2 1	3 6 8
ı	4 12 4	3 2 6	4 7 9	4 16 3	2 13 4	2 12 6
....	5 1 6	2 9 4	4 13 8	4 18 9	2 16 0	2 14 10
....	5 5 10	3 14 9	4 14 7	5 2 6	3 1 6	3 8 9
....	4 17 1	3 10 3	4 13 4	4 18 5	2 16 0	3 2 6
....	4 4 0	2 19 0	4 5 4	4 16 9	2 12 8	2 6 8
st	4 2 1	3 0 0	4 4 9	4 16 10	2 10 3	2 4 9
nber	4 6 4	2 18 9	4 3 6	4 19 4	2 5 2	2 8 6
er	3 17 7	2 10 10	4 0 0	4 14 10	2 4 2	2 12 9
nber	3 10 8	2 11 10	3 19 0	4 0 8	2 1 6	2 4 2
ıber...............	3 8 6	2 5 0	3 17 8	3 17 6	1 18 4	1 19 10
an Prices, 1896	4 7 2	3 0 9	4 7 11	4 15 10	2 12 3	2 14 7

Month, 1896.	Butter.			Cheese.		Eggs.		Milk.
	Creamery.	Factory.	Dairy.	Loaf.	Large.	North Coast	South Coast	
	Per lb.	Per lb.	Per lb.	Per lb.	Per lb.	Per doz.	Per doz.	Per gal.
	d.	d.	d.	d.	d.	d.	d.	d.
ry	12	11¼	9½	6¾	6¼	10¼	11¼	12
ary	11½	10½	9	6¾	6¼	12	14	12
ı	8½	7½	6½	6¼	5¾	14½	15½	9
....	9	8½	7½	5	4½	15	16¾	9
....	11	11	10	5	4¾	14¼	15½	9
....	11	10½	9¼	5¾	4¾	13¼	14	12
....	11½	11½	10¼	4½	4¼	12	13	12
st	11½	11	10	4¾	4¼	7¾	7¾	12
mber	10¾	10½	9	4½	4¼	6¾	7	12
er..........................	9½	8¾	7	4¼	3¾	6¼	6¾	12
nber	8½	7¾	6½	4½	4	6¾	7½	12
nber	8	7¾	6¼	4¼	3½	8¼	9	12
ın Prices, 1896	10¼	9¾	8½	5¼	4¾	10½	11½	11¼

Month, 1896.	Bacon.	Ham.	Lard, Bladder.	Porkers.		Fresh Pork
	Per lb.	Per lb.	Per lb.	Each.		Per lb.
	d.	d.	d.	s.	d.	d.
January	6½	9	5	21	0	3½
February	7	8½	5	17	6	3½
March	7	7¼	5	17	6	3½
April	6¾	8	5	18	0	3½
May	6¼	8	5	15	9	3¼
June	5¼	7¾	5	16	9	3¼
July	5	7¼	*	17	9	3½
August	5¼	7¼	*	19	3	3½
September	5½	7¼	*	21	9	3½
October	6	7¾	*	22	6	3½
November	6¼	8	*	21	6	3½
December	6½	8¼	*	19	9	3½
Mean Prices, 1896	6	8	5	19	0	3½

* No quotations.

Month, 1896.	Poultry.								Bee Produce.	
	Fowls.		Ducks.		Geese.		Turkeys (Cocks).		Honey.	Wax.
	Per pair.		Per pair.		Per pair.		Per pair.		Per lb.	Per lb.
	s.	d.	s.	d.	s.	d.	s.	d.	d.	d.
January	3	7	3	4	4	8	12	0	2¾	12¾
February	2	11	3	0	3	6	12	6	2¾	12½
March	2	11	2	6	3	8	11	8	2¾	12¾
April	3	0	3	0	4	4	7	6	2¾	12
May	3	0	3	0	4	0	7	6	2¾	12
June	3	0	3	1	4	0	7	2	3	12¾
July	3	5	3	9	4	8	8	7	3¼	12¾
August	3	3	3	11	4	10	8	6	3¼	12¾
September	3	4	3	11	5	0	9	2	3¼	12
October	3	5	4	0	5	8	11	6	3¼	12¾
November	3	4	3	11	5	4	10	0	3¼	12¾
December	3	6	3	3	5	7	12	4	3¼	12¾
Mean Prices, 1896	3	3	3	5	4	7	9	10	3	12½

Milling produce and feed grains were fairly steady in price—the former during the first ten months, and the latter during the whole

, with the exception of maize. Locally-grown wheat maintained a e between 3s. 11½d. and 4s. 5d. until November, when, owing to shortness of the supply in some of the other colonies, it at once to 4s. 11d. Barley and oats are for the most part imported, and prices of these cereals during the year call for little notice. Maize, he contrary, is almost wholly of local growth, and its price averaged ¾d. per bushel; falling from 3s. 4¾d. in January to 1s. 10¼d. in ember. In the various forms of fodder there was a gradual fall the high prices ruling at the beginning of the year, most of the below the average which is observable in some months being due ant of quality in the commodity offered. Root crops show very t range. Thus, locally-grown potatoes varied between £2 4s. 3d. £6 18s. 2d. per ton; while onions sold for £15 8s. per ton in ber, as against £6 16s. 8d. in December. No quotations are given ome of the columns of the foregoing tables; in the months in h these omissions occur no produce was offered, or a quantity fficient to merit a quotation.

ıe wholesale prices of farm-yard and dairy produce in the Sydney kets are shown in the preceding table. The figures call for little nent beyond the caution already given in regard to the prices of nodities generally—that the averages are irrespective of the quan s sold. As regards most of the articles in the list, the lower the the larger the consumption. The exception to this rule is poultry, h is most in demand before the Christmas season, when prices are spondingly high. A comparison of the average wholesale prices ıg for milling produce and feed grains for the last ten years is given ıe following figures :—

ar.	Milling Produce.				Feed Grains.		
	Wheat.	Flour.	Bran.	Pollard.	Barley.	Oats.	Maize.
	Per bushel.	Per ton.	Per bushel.	Per bushel.	Per bushel.	Per bushel.	Per bushel.
	s. d.	£ s. d.	d.	d.	s. d.	s. d.	s. d.
87	3 10	9 7 6	8¾	8¼	3 2	2 2	3 8
88	4 2	10 0 0	10¼	9¾	3 0	2 7	3 0
89	4 7	11 12 6	11	12	*	3 1	3 4
90	3 6½	9 7 6	7½	8	2 11	2 0	3 7½
91	4 5	11 0 0	9¾	9½	2 7	1 10½	2 7½
92	4 6	11 0 0	11½	11½	3 2	2 7	3 1
93	3 6½	8 16 2	8¼	8¾	3 0¼	2 8	3 9½
94	2 9½	7 9 0	7½	7¼	2 10½	2 2¼	2 2½
95	3 4	8 0 9	9	9	3 3	2 3¼	2 4¼
96	4 3	10 13 1	8½	8½	2 10½	2 2¾	2 4¾

* No quotations.

Year.	Root Crops.		Fodder.					
	Potatoes.	Onions.	Hay.		Straw.	Chaff.		
			Oaten or Wheaten.	Lucerne.		Oaten.		Straw.
						Prime.	Medium.	
	Per ton.	Per ton.	Per ton.	Per ton.	Per ton.	Per ton.	Per ton.	Per ton.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1887	3 0 0	4 7 6	4 0 0	3 0 0	3 10 0	4 0 0	2 15 0	2 12 6
1888	4 0 0	7 0 0	4 15 0	3 17 6	2 12 6	4 15 0	3 5 0	3 5 0
1889	7 0 0	18 10 0	6 0 0	4 5 0	3 15 0	6 0 0	4 10 0	4 5 0
1890	4 2 6	7 10 0	3 17 6	3 12 6	2 5 0	4 17 6	3 17 6	2 15 0
1891	2 15 0	4 10 0	4 15 0	3 0 0	2 5 0	4 5 0	3 5 0	2 10 0
1892	3 10 0	4 3 2	4 4 7	2 19 9	2 11 6	4 11 3	3 9 9	3 6 0
1893	4 14 6	6 1 2	3 10 3	3 0 5	2 3 4	4 3 4	3 15 5	2 5 0
1894	3 1 6	8 19 10	3 5 5	2 17 11	2 0 2	4 0 10	3 7 0	*
1895	3 5 8	4 6 1	£3 7 6		2 11 0	£3 16 8		*
1896	4 1 10	9 0 4	4 7 2		3 0 9	4 11 10		*

* No quotations.

Year.	Butter.	Cheese (Loaf).	Bacon.	Eggs.	Poultry.				Bee Produce.	
					Fowls.	Ducks.	Geese.	Turkeys	Honey.	Wax.
	Per lb.	Per lb.	Per lb.	Per doz.	Per pair.	Per pair.	Per pair.	Per pair.	Per lb.	Per lb.
	s. d.	d.	d.	s. d.	s. d.	s. d.	s. d.	s. d.	d.	d.
1887	1 1	7	7	1 4	3 6	4 1	7 0	9 5	3¾	10¼
1888	1 3½	6½	7½	1 4	3 3	3 8	6 6	9 9	3¼	10½
1889	1 1	6	7½	1 5	4 0	4 2	6 8	9 6	2¾	10½
1890	0 9½	4	7½	1 3¼	3 2¼	3 6½	6 0¾	9 4¾	3¾	10
1891	0 10	5½	7½	1 3½	3 0	3 6	5 6	8 6	4	10½
1892	1 0	4	7	1 1	3 2	3 5	5 4	7 8	3¾	10¾
1893	0 8½	3¾	6¼	1 1	3 1¾	3 2½	4 8	7 6	3½	11
1894	0 8	4	6½	0 11	3 3	3 4	4 9	7 10	2¾	10½
1895	0 9¾	5¼	6	0 10¼	2 8	2 8½	4 2¼	6 6	2¾	12
1896	0 9½	5¼	6	0 11	3 3	3 5	4 7	9 10	3	12½

The prices of the items set forth in the tables just given are determined by the local, or at all events the Australasian demand, wheat, of course, being an exception, its price being fixed by that ruling in the markets of the world. The prices of pastoral and other raw produce, which form so large a proportion of the exports of the colony, are not sensibly affected by local consumption. No object is to be gained by showing the monthly variations, so that in the following

tement, giving the wholesale prices of pastoral produce during 1896,
ly the average for the year is stated :—

Commodity.		Price.
Beef	per 100 lb.	13s. 5d.
Mutton	per lb.	1¼d.
Pork	,,	3½d.
Wool—		
Merino, washed	,,	10d.
,, scoured	,,	13d.
,, greasy, good average to superior	,,	9d.
Crossbred, greasy, good superior	,,	8½d.
Skirtings, scoured, merino	,,	13d. to 14d.
,, ,, crossbred	,,	11d. to 12d.
,, greasy	,,	6½d. to 7d.
Sheepskins—		
Full wool	,,	4½d. to 5¼d.
Medium	,,	3½d. to 4d.
Short	,,	3d. to 3¼d.
Pelts	,,	2d. to 3d.
Hides—		
Cattle, heavy	,,	3½d. to 4d.
,, medium	,,	3¼d. to 3½d.
,, others	,,	2½d. to 3d.
Horse	each	5s. to 7s. 6d.
Leather skins—		
Calves	,,	2s. 6d.
Kangaroo, extra large	per doz.	20s. to 28s.
,, other	,,	3s. to 16s.
Fur skins—		
Opossum	,,	6s. 6d. to 8s.
Platypus	,,	6s. to 18s.
Bear	,,	3s. 6d.
Hair—		
Horse, mane	per lb.	1s. 4½d.
,, tail	,,	9d.
Ox, tail (washed)	,,	1s.
,, stumps	,,	4d. to 6d.
Bones—		
Shank	per ton	£5
Common	,,	£2 to £2 5s.
Horns	per 100	£1 to £1 5s.
Hoofs	per ton	£2 10s.
Tallow—		
Mutton	,,	£17
Mixed	,,	£15 15s.
Beef	,,	£15 15s.
Wattle bark—		
Good	,,	£4 10s. to £5
Medium	,,	£3 10s. to £4
Tobacco—		
Good	per lb.	4d. to 4½d.
Medium	,,	3d. to 3½d.

PRICE LEVELS.

The total value of the exports of the colony is greatly affected by the prices obtained for certain leading lines of raw produce, of which wool and coal are the most important. In the following table the price-level of domestic exports is given for thirty-seven years, beginning with 1860. In order to ascertain the price-level, all the principal articles of domestic produce exported have been taken, and the prices of 1896 and the average prices of the five years 1870–74 have been applied to the quantities of each year, and the result compared with the actual total of such year. The value of the articles taken to obtain the price-level amounted in 1896 to 92·2 per cent. of the domestic exports, exclusive of gold. It is considered that the system adopted enables a truer estimate of the relative prices to be obtained than that of selecting the prices of certain articles without giving due weight to the quantities of such articles exported:—

Year.	Price-level of Exports.		Year.	Price-level of Exports.	
	1896 prices = 1,000.	Average of 1870-74 prices = 1,000.		1896 prices = 1,000.	Average of 1870-74 prices = 1,000.
1860	2,173	1,247	1879	1,604	921
1861	2,168	1,244	1880	1,574	903
1862	2,283	1,310	1881	1,562	897
1863	2,075	1,191	1882	1,613	926
1864	2,294	1,316	1883	1,613	926
1865	2,100	1,203	1884	1,599	919
1866	2,176	1,249	1885	1,404	806
1867	2,010	1,154	1886	1,350	775
1868	2,012	1,155	1887	1,387	797
1869	1,835	1,053	1888	1,346	773
1870	1,531	879	1889	1,367	785
1871	1,873	1,075	1890	1,321	758
1872	1,706	979	1891	1,200	689
1873	1,808	1,037	1892	1,136	652
1874	1,792	1,028	1893	1,028	590
1875	1,787	1,027	1894	927	532
1876	1,692	972	1895	951	546
1877	1,552	891	1896	1,000	574
1878	1,545	887			

These figures show that there has been a great fall in the prices of colonial produce exported since 1860, or still greater since 1864, viz., from the index number 1,316 to 574, or over 56 per cent. Marked fluctuations, ranging to about 10 per cent., occurred between 1860 and 1866, when the index number was about the same as in the first-named year. From 1866 to 1870 there was a drop from 1,249 to 879, or nearly per cent. A rise followed in 1871 to 1,075, or about 20 per cent., ter which for four years prices continued fairly steady, until there ıs a further decline in 1878 to 887. In 1879 the level rose to 921, d for the next four years prices continued without much change, t from 1884 to 1885 there was a fall from 919 to 806. This was cceeded by a fairly even range until 1889, when the level stood at 785. om 1889 there was a steep decline to 532 in 1894, a fall of 32 per nt. over the whole period of five years. During the following two ars there was a slight rise, the level for 1896 standing at 574. The l during the whole period of thirty-seven years was about 54 per cent. will be seen that the purchasing power of money has steadily increased ce 1864, if the Customs values of the exports fairly represent the ces ruling in the general community, whether in the colony or ewhere, and that 20s. in 1896 would purchase the same articles of mestic export which in 1864 would have cost nearly 46s.

The chief articles of domestic export are wool, coal, shale, live-stock, , silver, silver-lead and ore, copper, skins, tallow, and leather. Other icles have also been exported to considerable value in times past, but ir importance has disappeared, or is lost in comparison with that of products just named. Wool and coal have contributed greatly to wealth of the colony, and the fluctuation in their prices has had a y marked effect on the condition of trade. The price-level of these nmodities has been computed for the period which is covered by the ıeral table just given. It will be seen that the fluctuations in the ue both of wool and of coal have been more marked than those in the ue of the general exports, but the same tendency to fall is clearly ugh discernible:—

Year.	Price-level.			
	Wool.		Coal.	
	1896 prices = 1,000.	Average of 1870–74 prices = 1,000.	1896 prices = 1,000.	Average of 1870–74 prices = 1,000.
1860	2,627	1,573	2,161	1,408
1861	2,915	1,746	2,131	1,388
1862	2,782	1,666	2,186	1,424
1863	2,487	1,489	2,032	1,324
1864	2,626	1,573	1,569	1,022
1865	2,317	1,388	1,537	1,001
1866	2,293	1,373	1,529	996
1867	2,319	1,389	1,472	959
1868	2,170	1,300	1,467	956
1869	1,851	1,109	1,377	897
1870	1,423	852	1,277	832
1871	1,912	1,145	1,253	816
1872	1,639	982	1,269	827
1873	1,701	1,019	1,877	1,223
1874	1,674	1,002	1,998	1,302

Year.	Price-level.			
	Wool.		Coal.	
	1896 prices = 1,000.	Average of 1870-74 prices = 1,000.	1896 prices = 1,000.	Average of 1870-74 prices = 1,000.
1875	1,643	984	1,998	1,302
1876	1,578	945	1,984	1,293
1877	1,503	900	1,955	1,274
1878	1,427	855	1,942	1,265
1879	1,521	911	1,921	1,252
1880	1,540	922	1,558	1,015
1881	1,533	918	1,115	726
1882	1,512	905	1,415	922
1883	1,537	920	1,513	986
1884	1,540	922	1,519	990
1885	1,297	777	1,519	990
1886	1,204	721	1,505	981
1887	1,238	741	1,479	964
1888	1,185	710	1,527	995
1889	1,248	747	1,478	963
1890	1,168	699	1,495	974
1891	1,034	619	1,434	934
1892	1,015	608	1,295	844
1893	909	544	1,221	796
1894	842	504	1,041	678
1895	935	560	982	640
1896	1,000	599	1,000	652

A similar table for silver is given below, commencing with the yea 1884, when silver-mining in New South Wales first became an importan industry, owing to the discovery of the Silverton and Broken Hil mines :—

Year.	Price-level of Silver.	
	1896 prices = 1,000.	1884 prices = 1,000.
1884	1,637	1,000
1885	1,575	962
1886	1,466	896
1887	1,441	880
1888	1,386	847
1889	1,379	842
1890	1,543	943
1891	1,456	889
1892	1,286	786
1893	1,173	717
1894	919	561
1895	970	593
1896	1,000	611

It must not be supposed that the colony is altogether a loser by the ll in the prices of its exports, because the power of those exports to rchase imports must also be taken into consideration. It will, there re, be necessary to consider also the price-level of imports. As there ist no reliable data on which price-levels for imports can be based prior 1870, the table commences with that year :—

Year.	Price-level of Imports.		Year.	Price-level of Imports.	
	1896 prices = 1,000.	Average of 1870–74 prices = 1,000.		1896 prices = 1,000.	Average of 1870–74 prices = 1,000.
1870	1,394	966	1884	1,244	862
1871	1,400	970	1885	1,140	790
1872	1,463	1,014	1886	1,120	776
1873	1,486	1,030	1887	1,130	783
1874	1,472	1,020	1888	1,124	779
1875	1,388	962	1889	1,172	812
1876	1,362	944	1890	1,160	804
1877	1,310	908	1891	1,107	767
1878	1,299	900	1892	1,062	736
1879	1,244	862	1893	1,022	708
1880	1,253	868	1894	971	673
1881	1,240	859	1895	961	666
1882	1,234	855	1896	1,000	693
1883	1,254	869			

It may be said generally that the fall in prices was somewhat in favour the exports up to the year 1889. Since then the exports have fallen vay on the average values at a much more rapid rate than the imports. clearer view of the operation of the fall in prices will be ob- ined from the table which is given below, showing the price-levels imports of merchandise for home consumption, and exports domestic produce, for periods of five years, with the relative fall r cent. :—

Period.	Imports.		Exports.	
	Average of five years, 1870–4, prices = 1,000.	Decline in prices in five years, per cent.	Average of five years, 1870–4, prices = 1,000.	Decline in prices in five years, per cent.
1870–74	1,000	......	1,000	......
1875–79	915	8·5	940	6·0
1880–84	863	5·7	914	2·8
1885–89	788	8·7	787	13·9
1890–94	738	6·3	644	18·2
1895–96	680	7·9	560	11·5

It will be seen that, assuming the index number of the five years 1870–4 to be 1,000, the fall in the succeeding five years was 8·5 per cent for the imports as compared with 6·0 per cent. for the exports. The average value of the imports for the five years ending with 1884 was 5·7 per cent. less than in the preceding quinquennial period, whereas the difference in the value of the exports was 2·8 per cent.; nevertheless, the index number for 1885–9 for both imports and exports was practically the same figure. As already mentioned, the fall for the period which has since elapsed has been much more heavy in regard to the exports than for the imports.

New South Wales, in common with the other Australasian colonies, is chiefly affected by the fall in prices because it is a debtor country. Certain calculations which have been made show that the annual charge payable by the State and municipalities on their indebtedness to British and foreign creditors is £2,009,000, while the earnings of investments made in the colony by private persons, or drawn by absentees, amount to £2,798,000 per annum. As the whole of the interest on Government and municipal loans has to be paid by exports irrespective of the fall in prices, and as a large portion also of the interest payable to private investors is in the same category, the fall is a matter of very serious importance to these colonies, viewed as debtor States. Fortunately the increase of production in New South Wales as compared with the population has been such as partly to counteract the fall in prices; but it is impossible to believe that the probable increase of production will compensate the colony for a renewed fall at the alarming rate at which the decline took place during the four years ended 1894.

DEFENCE.

EW South Wales was garrisoned with British troops from the time of its foundation as a colony until the year 1870. For t of the years 1870 and 1871 the colony was without regular troops, lefence being entirely in the hands of the Volunteer Force. In 1871 ocal regular defence force was enrolled, comprising one battery of illery and two companies of foot. The latter were disbanded in the owing year; but the Artillery was strengthened by a second battery 1876, and a third in 1877. In 1888 the permanent force, which il that year had consisted of only one arm, was extended to include os of Submarine Miners and Mounted Infantry. The latter, however, sed to exist in 1890; but a fourth battery was added to the Artillery, in 1891 a third arm was again raised in the form of a Medical Staff ps.

o supplement the Imperial troops in Australia, a volunteer force enrolled in 1854, Great Britain being then at war with Russia. Act authorising the establishment of this force was 18 Vic. No. 8. original strength of the corps was one troop of Cavalry, one battery rtillery, and six companies of foot, called the 1st Regiment of New th Wales Rifles; but with the termination of the Crimean war the unteers practically ceased to exist. A few years later, in 1860, econd force was enrolled, consisting of one troop of Mounted es, three batteries of Artillery—two being stationed at Sydney, one at Newcastle—and twenty companies of Infantry, fourteen which were recruited from Sydney and its suburbs, and six from country districts; the total strength of all arms being about 0 men. The existence of the Mounted Rifles was brief, for were disbanded in 1862, and more Artillery raised in their stead. the following year a Naval Brigade was enrolled to assist in defence of the colony by sea. In 1868 the military force was ganised under the Volunteer Regulation Act, passed towards the of the previous year, each man receiving a grant of 50 acres of for five years' efficient service. The land orders, however, were ished in 1874, and a direct system of partial payment introduced. 878 a further reorganisation of the Volunteer troops of the colony place in accordance with a plan drawn up by Sir William Jervois, the present force is serving under the Act of 1867 as amended in year. A corps of Naval Artillery Volunteers, who were to receive emuneration, but only an allowance for instruction and incidental expenses, was raised in 1882, and it was followed a few years later by numerous bodies of military reserves, comprising all the principal arms, on the same footing; but all were gradually disbanded or merged in the partially-paid forces of the colony, until at the end of 1895 the small body of the Scottish Rifles was the only one which was strictly entitled to be classed as a Volunteer corps. In 1896, however, three rifle corps, designated the Irish Rifles, the St. George's Rifles, and the Australian Rifles, were raised. The Scottish and Irish Rifles comprise the 5th Regiment; the Australian Rifles, the 6th Regiment; and the St. George's Rifles, the 7th Regiment. A "National Guard," consisting of old volunteers of the colony, or men who have served elsewhere, has also been established.

The total defence forces of the colony at the end of 1896 numbered 6,027 officers and men, distributed as follows:—

Permanent Troops:—		**Volunteers:—*	
Headquarters Staff	56	Scottish Rifles	188
General Staff	10	Irish Rifles	176
Permanent Staff	81	St. George's Rifles	231
Artillery	431		
Engineers (Submarine Miners)	26	Total	595
Army Service Corps	6		
Medical Staff Corps	11		
		Honorary:—	
Total	621	Chaplains	15
		Medical Officers	18
Partially-paid Troops:—			
Lancers	381	Total	33
Mounted Rifles	355		
Field Artillery	146		
Garrison Artillery	469	*Naval Volunteer Force:—*	
Engineers—Field	116	Naval Defence Force Staff	4
Submarine Miners	75	Naval Brigade	329
Electricians	77	Naval Artillery Volunteers	242
Infantry	2,422	Torpedo Boats	5
Army Service Corps	58		
Medical Staff Corps	99	Total	580
Total	4,198	Grand Total	6,027

* Australian Rifles and National Guard not recruited at close of 1896.

Permanent Troops.

The actual strength of the Military Forces of the colony on the 31st December, 1896, was 5,447, or 781 below the establishment. This large deficiency was chiefly caused by the fact that the Australian Rifles and the National Guard had not been recruited at that date. The Permanent Troops numbered 621 of all ranks. The Headquarters Staff were, of course, all located in Sydney. Of the General Staff, 6 were stationed in Sydney, 2 in the Western, 1 in the South-western, and 1 in the Northern District; while of the Permanent Staff, 45 were in Sydney, 4 in the Southern District, 14 in the Western, 4 in the South-western, 2 in the South Coast, and 12 in the Northern District

The Army Service Corps, Medical Staff Corps, and Submarine Miners are all stationed in the Metropolitan District, where are also located the Artillery, with the exception of the small garrisons manning the forts in the South Coast and Northern Districts. The rates of pay of the Artillery, exclusive of allowances, were on the 31st December, 1896 :—Officer commanding, £730; lieutenant-colonel, £420; brigade-major, £384; majors, £356; captains, £321; lieutenants, £180 to £216; warrant-officers, 7s. 10d. to 9s. 9d. per diem; sergeant-majors and quartermaster-sergeants, 5s. 5d. to 6s. 4d. per diem; sergeants, from 4s. to 6s. 10d. per diem; corporals, 3s. 4d. per diem; bombardiers, 3s. 2d. per diem; trumpeters, 2s. 3d. per diem; master gunners, 6s. 10d. to 7s. 10d. per diem; gunners, 2s. 3d. per diem. The Submarine Miners are paid as follow :—Officer commanding, £384; sergeants, from 7s. 4d. to 8s. 4d. per diem; corporals, from 5s. to 6s. 4d. per diem; sappers, 4s. per diem, and bugler, 2s. 3d. per diem. The Artillery man the batteries guarding the harbours of Sydney, Botany Bay, Wollongong, and Newcastle; mount guard at the vice-regal residence, and perform such other duties as usually appertain to a garrison. The troops are a fine body of men. The minimum height at which recruits are accepted is 5ft. 6in. for drivers, and 5ft. 8in. for gunners.

The British military authorities afford facilities to New South Wales officers to gain a better knowledge of the duties of their profession than they could acquire in the colony, by sanctioning their attachment to corps serving in India. These facilities have on several occasions been taken advantage of, and an insight into the routine of the large cantonments has been gained, as well as actual experience of the sharp campaigning which is often going on in that country.

PARTIALLY-PAID TROOPS.

The Partially-paid Troops and Volunteers of the colony consist of seven arms in addition to the honorary staff of chaplains and medical officers, the total strength of the force being 4,793 men of all ranks, as shown in the preceding table. The Medical Staff Corps was raised in 1888, and originally consisted of one company, a second being added in 1893. It is stationed in Sydney.

The cavalry regiment known as the New South Wales Lancers was first raised in 1885 as a volunteer reserve corps, under the name of the Light Horse; but in 1888 the men were merged in the partially-paid troops, under their present designation. They provide their own horses and equipment, their uniform and arms being supplied by the Government. The regiment is distributed throughout three districts, as follows :—

Sydney and Suburbs	95
South-western District	95
Northern District	191
Total	381

Unlike the Lancers, the Mounted Rifles were directly enrolled in 1889 as a partially-paid body, being strengthened by the inclusion of a part of the Light Horse already alluded to. They now number 355, distributed as follows:—

Western District	132
Northern District	90
Southern District	44
South Coast District	45
South-western District	44
Total	355

The Artillery consist of 615 men of all ranks, of whom 146 compose the field batteries. They were first enrolled in 1867, when 4 batteries, one of which was a field battery, were formed. In 1885 an unpaid force of four batteries was raised as a reserve, but two of these were broken up in 1892, and the others included in the partially-paid force, forming a second field battery. In the following year the Volunteer field batteries were united with the permanent one to form the Brigade Division Field Artillery. The other batteries were designated the Second Garrison Division Artillery, the First Garrison Division being the permanent force. The men are distributed over three districts, the strength of each being:—

Sydney	453
Northern District	76
South Coast District	86
Total	615

The Engineers are located in Sydney. As originally formed in 1867, they consisted of one field company. Torpedo and signalling corps were recruited ten years later, and in 1890 another field company was raised. In 1893 the whole force was united with the permanent Submarine Miners to form a corps of Engineers. The torpedo and signalling corps were respectively designated Submarine Miners and Electricians, the regulars forming the permanent section of the first of these corps. The Field Companies number 116 men of all ranks; and the Volunteer Submarine Miners and the Electricians are, respectively, 75 and 77 strong.

The present Infantry Regiments, known as the 1st, 2nd, 3rd, and 4th, were originally designated the Sydney, South Sydney, Western, and Northern Battalions. In 1885 unpaid foot reserves were raised as the 5th and 6th Regiments, the former consisting of the present Scottish Rifles. The infantry reserves, however, were gradually weakened, and many of the men were formed into Reserve Rifle Companies, the remainder in 1892 being absorbed by the 1st, 2nd, 3rd, and 4th

Regiments when their establishment was raised from eight to ten companies. At the end of the same year the Rifle Companies were disbanded, and Civilian Rifle Clubs formed, and these clubs, now estimated to include 2,000 men, were enrolled as a Reserve Corps for existing regiments in 1895. In 1894 the partially-paid regiments of infantry were strengthened by the absorption of the "Senior Cadets," the older division of a cadet force established in connection with the public schools of the colony; the younger division, known as the Cadet Force, and now numbering 3,164 youths, remaining under the control of the Minister of Public Instruction. As already stated, Volunteer Corps, known as the Irish Rifles, Australian Rifles, and St. George's Rifles, were raised in 1896, the first-mentioned body, with the Scottish Rifles, forming the 5th Regiment, and the other corps, the 6th and 7th Regiment respectively. The reserve force was strengthened by the formation of the National Guard, the members of which have had some military experience either in regular or volunteer forces. The infantry force is distributed over six districts, the strength of each being :—

Sydney and Suburbs	1,269
Southern	297
Western	588
South-western	121
Northern	622
South Coast	120
Total	3,017

The Army Service Corps was raised in 1881 under the title of the Commissariat and Transport Corps, its designation being changed two years later. It comprises 58 officers and men, all of whom are stationed in the metropolis.

Volunteers are admitted between the ages of 18 and 40 years. To rank as efficient, the Artillery are required to attend 2 out of 3 whole-day parades, 6 out of 8 half-day parades, and 12 out of 16 night parades and shot practice; the Engineers (Field Companies) to attend 2 out of 3 whole-day parades, 9 out of 14 half-day parades, and 9 out of 12 night drills; the Submarine Miners, 14 out of 17 whole-days' training in camp; the Infantry and Mounted Brigade, 2 out of 3 whole-day parades, 9 out of 13 half-day parades, and a complete course of musketry; Army Service Corps and Medical Staff Corps, 2 out of 3 whole-day parades, and 6 out of 8 half-day parades. Annual inspection by the General Officer Commanding or his representative is included in the foregoing. Pay is granted to all ranks according to a sliding scale, gunners, sappers, and privates receiving 8s. for each whole-day parade, 4s. for a half-day parade, and 2s. for a night parade. In addition to these sums, every Volunteer who passes through the musketry course and qualifies as a marksman is granted 12s.; and, if he should qualify at the end of the year as an efficient, a further sum of £1 12s., unless he be a Submarine Miner, in which case he is granted £2 for efficiency and £2 16s. for extra proficiency.

In 1880 the Imperial military authorities conferred upon the Senate of the Sydney University the privilege of annually nominating a student to a cadetship at the Royal Military College, Sandhurst. Two commissions in the British Army are also granted to the Sydney and other Australian Universities under certain conditions.

NAVAL VOLUNTEER FORCE.

With the object of strengthening the Imperial fleet on the Australian Station, and securing a naval force sufficiently strong to resist attack in the event of war breaking out between Great Britain and a maritime power, the colonies of Australasia, a few years ago, entered into an agreement with the Imperial Government by which an Auxiliary Squadron of seven fast and powerful cruisers and gunboats was built for exclusive service in Australian waters. The combined fleets number no fewer than seventeen vessels, and under the circumstances it is unnecessary that New South Wales should have any navy of its own, the only ships of war which it possesses being two small torpedo boats—the Acheron and the Avernus. The colony, however, has enrolled in its service two bodies of naval volunteers, who receive a small annual payment, and who would prove very useful as a reserve from which crews could be partly drawn for the three vessels of the Auxiliary Squadron which are laid up in times of peace.

The first of these bodies is the Naval Brigade, which was enrolled in 1863. It consists largely of time-expired seamen of the Royal Navy, discharged from the ships on the Australian Station. At the present time there are no facilities for drilling the men at sea, and in the manœuvres hitherto carried out they have mostly been employed as a light artillery land force. The Brigade consists of six companies, comprising 17 commissioned officers, 24 petty officers, 12 other officers, and 276 men classed as A.B. Of this force, 277 are stationed in Sydney and 52 at Newcastle.

The other arm of the naval service is known as the Naval Artillery Volunteers. This body was organised in 1882, and for the first ten years received no payment, the Government merely supplying arms and uniforms, and annually allowing a sum for instruction and incidental expenses; but in July, 1892, the corps was included amongst the partially-paid forces of the colony. The men have been trained in the use of the torpedo, and would be found serviceable for the defence of the harbour should a hostile fleet evade or overcome the British and Australian war vessels. The strength of the corps is 242 men of all ranks, including 15 officers and 23 petty officers, and 204

B's. In addition to these there are five men belonging to the corps 10 are in charge of the Acheron and the Avernus. There are also ur staff officers, bringing the total strength of the naval forces up to 0 of all ranks.

THE IMPERIAL FLEET.

The headquarters of the Imperial Fleet and the Australasian Auxiliary uadron are situated at Port Jackson, under an arrangement with the perial authorities, by which the Government of the colony undertook give up Garden Island for the purposes of a naval station, and to ect thereon the requisite buildings, as well as to provide certain other commodation required for the war vessels in the harbour. In consiration of this it was agreed that Sydney should be the headquarters the Australian Fleet, and that the Imperial Government should give all claim to certain lands and buildings owned by them in the colony, cluding the Paddington Barracks, the Domain, and Botanic Gardens d the old Commissariat Stores, as well as other valuable properties.

The following is a list of the Imperial war-vessels now on the Auslasian station under Rear-Admiral Bridge. The Penguin, Dart, and aterwitch are engaged in surveying service :—

ame.	Class.	Displacement.	Indicated horse-power.	Draught of water extreme.	Length.	Beam.	Armament.	Speed.	Coal endurance.	
							Guns.		Coal that can be carried in bunkers.	Distance that can be steamed at 10 knots' speed.
		tons.		ft. in.	ft. in.	ft. in.		knots.	tons.	knots.
ndo..	Twin-screw cruiser, 1st class, armoured.	5,600	8,500	24 8	300 0	56 0	Two 9·2-in. 22-ton B.L.R., 10 6-in. 5-ton B.L.R., 16 Q.F. Hotchkiss, 7 M., 3 L.	18·5	900	7,000
des..	Screw cruiser, 3rd class.	1,420	1,400	17 9	200 0	38 0	Fourteen 5-in. 38-cwt. B.L.R., 8 M., 1 L.M.	13·1	425	6,600
id....	Screw cruiser, 3rd class.	1,420	1,400	16 7	200 0	38 0	Two 6-in. 4-ton B.L.R., 10 5-in. 38-cwt. B.L.R., 4 M., 1 L.	13·1	425	6,600
alist.	Screw cruiser, 3rd class.	1,420	1,510	16 11	200 0	38 0	Two 6-in. 4-ton B.L.R., 10 5-in. 38-cwt. B.L.R., 4 M., 1 L.	13·1	425	6,600
rd ..	Screw gunboat, 1st class.	715	1,000	12 6	165 0	29 0	Six 4-in. 25-cwt. B.L.R., 4 M.	12·7	105	2,500
dfinch	Screw gunboat, 1st class	805	1,200	13 3	165 0	30 0	Six 4-in. 26-cwt. B.L.R., 2 Q.F. Hotchkiss, 2 M.	13·0	105	..
ch ..	Screw sloop..	960	1,100	14 6	180 0	32 6	Six 4-in. Q.F. guns, 4 3-pr. Q.F. Hotchkiss, 2 45-in. Maxim.	13·25	130	2,000
guin.	Screw sloop..	1,130	700	14 0	180 0	38 0	Two 64-pr. M., 1 L., 2 M.	10·0	200	..
t	Screw yacht..	470	200	12 11	133 0	25 2	2 L., 2 M.	8·8	70	..
ter-itch.	Screw yacht.	479	250	12 6	140 0	26 0	2 L., 2 M.	9·0	64	..

.R. Muzzle-loading rifled guns; Q.F., Quick-firing guns; M., Machine guns; L., Light guns under 15 cwt.; B.L.R. Breech-loading rifled guns.

The hull of the Orlando is of steel; and those of the other vessels are of composite materials. The Orlando has a 10-inch armoured belt at water-line, with 3-inch armoured deck, and 12-inch conning tower; and in addition to the armament mentioned in the table, she has two torpedo tubes.

As opportunity offers, the Admiral on the station is empowered to grant commissions, for periods not exceeding six months, to officers of the naval forces of the colonies, in order that they may gain some experience of the conditions under which modern naval warfare is practised. Four cadetships and three engineer studentships in the Imperial Navy are given annually to Colonial boys, who must not be less than 13 nor more than 14½ years of age. The cadets undergo a course of instruction for two years on board the Britannia training-ship before they receive a commission.

THE AUSTRALASIAN AUXILIARY SQUADRON.

Under the provisions of the Australasian Naval Force Act, which was assented to on the 20th December, 1887, all the colonies have entered into an agreement with the British Government for the payment of a subsidy towards the maintenance of an Australian Auxiliary Squadron. The annual subvention payable by the colonies amounts to £91,000 for maintenance and £35,000 as interest charge on the cost of construction at the rate of 5 per cent. per annum, making a total of £126,000, of which New South Wales, according to population, would bear £37,820 for the year 1897. The fleet, which entered Port Jackson on the 5th September, 1891, consists of five fast cruisers and two torpedo gunboats. Of these, three cruisers and one gunboat are always kept in commission, the remainder being held in reserve in Australasian ports, but ready for commission whenever circumstances may require their use. The vessels in reserve at the present time are the Ringarooma and the Boomerang; while the Katoomba is used as the guardship of the Reserve. The agreement is for a period of ten years, and is then, or at the end of any subsequent year, terminable, provided two years' notice shall have been given. The Australasian Governments have no voice whatever in the management of the vessels, nor any control over their movements. On the termination of the agreement the vessels will remain the property of the Imperial Government. The strength of the fleet in Australian waters before the Australasian Squadron was built is maintained.

Particulars respecting the vessels of the Australasian Auxiliary Squadron will be found below. The Boomerang and Karrakatta are classed as torpedo gun-boats; all the other vessels are third-class screw cruisers. The deck armour over machinery space is 2 in. and 1 in., and in conning towers 3 in., except in the case of the torpedo boats, the towers of which have 1-in. armour :—

Name	Displacement.	Indicated horse-power.	Draught of water extreme.	Length.	Beam.	Armament.		Speed.	Coal endurance.	
						Guns.	Torpedo tubes.		Coal that can be carried in bunkers.	Distance that can be steamed at 10 knots' speed.
	tons.		ft. in.	ft. in.	ft. in.			knots	tons.	knots.
Katoomba	2,575	7,500	17 6	265 0	41 0	Eight 4·7 Q.F. guns, eight 3-pr. Q.F. guns, one 7-pr. M.L.R. gun (boat and field), four 4·45 in. 5 barrel Nordenfeldt.	4	16·5	300	6,000
Ringarooma ..	2,575	7,500	17 6	265 0	41 0	do ..	4	16·5	300	6,000
Mildura	2,575	7,500	17 6	265 0	41 0	do ..	4	16·5	300	6,000
Wallaroo	2,575	7,500	17 6	265 0	41 0	do ..	4	16·5	300	6,000
Tauranga	2,575	7,500	17 6	265 0	41 0	do ..	4	16·5	300	6,000
Boomerang ..	735	3,500	10 8	230 0	27 0	Two 4·7 in. Q.F. guns, four 3-pr. Q.F. guns.	3	*18·75	160	2,500
Karrakatta ..	735	3,500	10 9	230 0	27 0	do ..	3	*18·75	160	2,500

* This speed can be increased until, under favourable conditions, for a short period, a maximum of 21 knots can be obtained. Q.F.—Quick-firing guns.

In the event of any of the squadron being lost the vessel is to be replaced by the British Government.

FORTIFICATIONS.

At various points along the coast of New South Wales, extensive fortifications have been constructed, and Sydney, protected as it is by two lines of defence, is regarded as almost impregnable. Botany Bay is strongly fortified, and the works there form the southern defence of the metropolis; while to the north, Newcastle, the great coal port of the colony, has also been rendered as secure as possible against attack ; and down the coast, to the south, fortifications have been constructed at the towns of Bulli and Wollongong.

Fortifications have been erected at King George's Sound and Thursday Island at the joint cost of the five Australian colonies. In the first case, one-fourth of the cost is borne by Western Australia (which supplies the garrison), and three-fourths by the other colonies on a population basis; while, in the other, each of the colonies contributes according to the number of its inhabitants. It is probable that the important strategic points of Hobart and Port Darwin will be fortified under a somewhat similar agreement in the near future.

EXPENDITURE ON DEFENCE.

The expenditure by the State during 1896–7, from the Consolidated Revenue, on defence works and the Permanent and Volunteer Forces, amounted to £213,014, distributed as follows:—

	£	£
Permanent and Partially-paid Military Forces	....	158,056
Naval Forces	....	8,706
Federal Defence :—		
King George's Sound	799	
Thursday Island	2,345	
Naval contribution	37,989	
Total	....	41,133
Other Expenditure :—		
Rifle Associations	1,815	
Royal Naval House	200	
Military Secretary	1,917	
Military Pensions	1,187	
Total	....	5,119
Grand total	....	213,014

Whatever opinion may be entertained of the present condition of the defences of the colony, there can be no doubt that a very large sum of money has been expended upon them. The details cannot now be ascertained respecting the earlier defences of the harbour of Port Jackson, such as Fort Phillip, where the Observatory now stands, Fort Macquarie, and Fort Denison, which, with the batteries at Dawes' Point, Kirribilli, and Mrs. Macquarie's Chair, were thought to render Sydney almost impregnable some forty years ago, when the ponderous artillery now in use had not been invented. The returns of expenditure for defence purposes since the assumption of responsible government, are, however, available and are appended hereto. It will be observed that during the forty and a half years no less than £4,576,647 was expended from the Consolidated Revenue, or an average of £113,004 per annum, for these services :—

Year.	Military Expenditure (including Buildings and Works of Defence).	Naval Expenditure.	Total.	Year.	Military Expenditure (including Buildings and Works of Defence).	Naval Expenditure.	Total.
	£	£	£		£	£	£
1857	31,824	538	32,362	1879	92,216	5,219	97,435
1858	23,974	3,296	27,270	1880	72,712	5,683	78,395
1859	18,376	6,089	24,465	1881	80,215	5,810	86,025
1860	30,373	2,910	33,283	1882	96,387	12,858	109,245
1861	68,085	2,275	70,360	1883	117,554	15,202	132,756
1862	24,188	4,330	28,518	1884	147,725	14,960	162,685
1863	18,845	1,943	20,788	1885	224,318	18,895	*243,213
1864	25,789	1,054	26,843	1886	200,488	18,696	219,184
1865	14,522	2,508	17,030	1887	156,681	6,670	163,351
1866	18,167	3,522	21,689	1888	158,479	9,210	167,689
1867	23,762	3,772	27,534	1889	206,457	11,582	218,039
1868	30,824	4,096	34,920	1890	224,352	11,195	235,547
1869	31,278	3,570	34,848	1891	275,343	12,085	287,428
1870	22,241	3,612	25,853	1892	240,258	81,746	322,004
1871	31,952	3,964	35,916	1893	205,425	13,925	219,350
1872	43,055	3,995	47,050	1894	219,158	53,200	272,358
1873	48,567	4,886	53,453	†1895	109,498	42,592	152,090
1874	81,223	5,034	86,257	1895-6	173,580	47,546	221,126
1875	39,092	5,213	44,305	1896-7	166,119	46,895	213,014
1876	62,385	5,548	67,933				
1877	117,263	5,565	122,828	Total ...	3,760,340	516,141	4,576,647
1878	87,590	4,618	92,208				

* Exclusive of £121,630, cost of sending Australian Contingent to the Soudan. † Six months.

In addition to the sums paid out of current revenue, a large amount of loan money has been expended in the erection of fortifications, which it is expected will serve for the protection of future generations of colonists as well as the present. The details of this expenditure are as follow :—

Previous to 1871..... .... £80,805.

	£		£
1871	43,601	1886	61,814
1872	24,466	1887	8,350
1873	35,134	1888	122,296
1874	22	1889	56,440
1875	368	1890	46,982
1876	4,506	1891	111,896
1877	3,735	1892	54,478
1878	33,227	1893	17,128
1879	21,270	1894	15,183
1880	14,582	*1895	2,414
1881	22,640	1895-6	17,629
1882	39,757	1896-7	11,102
1883	24,819		
1884	4,683	Total	£934,056
1885	54,729		

* Six months.

Another source of expenditure to the colony is that of the Naval Station in Port Jackson, to which reference has been made under the heading of the Imperial Fleet. In carrying out the works at Garden Island and the alterations at Kirribilli Point the following expenditure has been incurred :—

Year.	Amount. £	Year.	Amount. £
1885	642	1893	34,669
1886	33,928	1894	33,796
1887	15,431	*1895	9,210
1888	52,013	1895–6	4,345
1889	15,574	1896–7	Nil.
1890	42,768		
1891	42,201	Total	£307,950
1892	23,373		

* Six months.

It thus appears that the total amount spent by the colony of New South Wales for defence purposes from the beginning of the year 1857 to the 30th June, 1897, was £5,986,498, or an average of about £147,815 per annum. The items which make up this amount may be recapitulated thus :—

	£
From Consolidated Revenue	4,576,647
Loans—Fortifications and Warlike Stores	934,056
Naval Station, Port Jackson	307,950
Value of Land alienated in virtue of Volunteer Land Orders, computed at £1 per acre	167,845
Total	£5,986,498

PUBLIC FINANCE.

System of Revenue and Expenditure Accounts.

ON the 18th November, 1895, an Act amending the Audit Act of 1870 was assented to. By this Act it was declared "that all appropriations from the Consolidated Revenue Fund shall lapse at the close of the financial year to which they refer, and from the 1st day of July, 1895, the cash receipts within the financial year shall be considered as the actual income, and the cash payments during the same period, the actual outlay." This amounted to a complete revolution in the system of keeping the public accounts, introducing what is usually termed the "cash basis," a system of accounts which obtains in several of the adjoining colonies, and has been found to work in the interests of economy and good government. Under the system that has been superseded, the expenditure for the services of a year and the actual expenditure during that year could only be shown by two different systems of accounts. When a specific appropriation was made for any service the expenditure incurred under such authorisation would be charged against the year for which the vote was taken, irrespective of the date when the payments were made; and for this reason the public accounts for any year could not be closed until all appropriations lapsed, or were written off or exhausted. As a matter of practice, when the expenditure exceeded the income, there were frequent differences of opinion between the incoming and outgoing Treasurers as to the propriety of charging items, sometimes of large amount, to particular years, with the result that conflicting and irreconcilable statements were made, to the confusion of the uninitiated and the detriment of public credit.

In order to show how unfavourably Estimates of Expenditure and Revenue realised compare with one another, the following statement has been compiled. The figures cover ten and a half years, during which period the revenue appropriated exceeded that realised in every year :—

Year.	Appropriations for Services of each year, irrespective of the year in which the appropriation was made.	Gross Revenue.	Excess of Appropriations.
	£	£	£
1887	9,053,862	8,582,809	471,053
1888	9,138,985	8,886,332	252,653
1889	9,493,776	9,066,941	426,835
1890	9,809,183	9,494,584	314,599
1891	10,758,952	10,036,185	722,767
1892	11,288,413	10,501,104	787,309
1893	10,513,158	9,706,734	806,424
1894	10,203,957	9,459,235	744,722
*1895	4,923,339	4,558,569	364,770
†1896	9,491,592	9,253,939	237,653
†1897	9,922,856	9,287,000	635,856

* Six months ended 30th June. † Twelve months ended 30th June.

Taking the figures as they stand, it will be seen that from the 1st January, 1887, to the 30th June, 1897, there was appropriated for the public service the sum of £104,598,073, while the actual revenue obtained was £98,833,432. Fortunately, the expenditure actually incurred was below that authorised by Parliament, so that the figures just given merely show what might have happened had the authority of Parliament been fully availed of. The actual excess of expenditure, however, as will be seen from the statement given below, was sufficiently serious in itself. The figures are exclusive of advances repaid and made :—

Year.	Gross Revenue.	Gross Expenditure charged against year.	Excess of Revenue over Expenditure.	Excess of Expenditure over Revenue.
	£	£	£	£
1887	8,582,809	8,799,156	....	216,347
1888	8,886,332	8,625,563	260,769	....
1889	9,066,941	9,151,437	....	84,496
1890	9,494,584	‡9,569,683	....	75,099
1891	10,036,185	‡10,578,230	....	542,045
1892	10,501,104	‡10,868,021	....	366,917
1893	9,706,734	‡9,816,875	....	110,141
1894	9,459,235	‡9,694,889	....	235,654
*1895	4,558,569	‡4,862,184	....	303,615
†1896	9,253,939	‡8,925,651	328,288	....
†1897	9,287,000	‡9,439,820	....	152,820

* Six months ended 30th June. † Twelve months ended 30th June.
‡ Includes redemption of Treasury Bills in aid of Revenue.

It has been pointed out in previous issues that a comparison could not be made between the revenue and expenditure of 1890 and subsequent years, as the accounts for those years were not closed. This peculiarity of the public accounts, which is strikingly shown in the following table, brought down to 1897 (the accounts for which are practically closed) is now removed consequent on the passing of the Audit Act Amendment Act of 1895 (59 Vic. No. 10):—

Y which the amounts were paid.	Expenditure charged against the undermentioned years :—							
	1890.	1891.	1892.	1893.	1894.	1895.*	1896.†	1897.†
	£	£	£	£	£	£	£	£
1890	8,629,708	......	......	......	......	......	......	......
1891	793,556	9,633,045	......	......	......	......	......	......
1892	142,847	735,988	9,648,604	......	......	......	......	......
1893	3,572	203,696	1,115,496	8,966,258	......	......	......	......
1894	......	5,431	90,939	611,289	8,778,225	......	......	......
*1895	......	13	8,682	83,899	772,224	4,059,535	......	......
†1896	......	57	2,954	155,429	144,080	650,286	8,899,411	......
†1897	......	......	1,346	......	360	152,363	26,240	9,439,820
	‡9,569,683	‡10,578,230	‡10,868,021	‡9,816,875	‡9,694,889	‡4,862,184	‡8,925,651	‡9,439,820

* Half-year ended 30th June. † Year ended 30th June.
‡ Includes Redemption of Treasury Bills in aid of Revenue.

The expenditure charged against 1891 extended over six years, and amounted to £10,578,230, of which £9,633,045 only was incurred during the year, and £945,185 in the following years; and as further illustrating the anomalies of the old system, it may be mentioned that the revenue for the year was £10,036,185, or £542,045 less than the total outgoings, and only £403,140 more than the expenditure within and chargeable to the year, although a possible further expenditure of £1,125,907 had been provided for. Such being the ordinary condition of accounts, it will without difficulty be conceded that under so loose a system a succession of deficits was only to be expected.

One unacquainted with the peculiarities of State finance might find it hard to understand how it is possible for a large deficit to have accumulated, and an expenditure in excess of revenue to have been still further indulged in. The explanation is simple. Through the operation of various Acts of the Legislature, and the accumulations in the Post Office Savings Banks, the Treasury has at its disposal large sums in trust, and by the use of this money the accumulated deficits have been temporarily met. When in 1889 the deficit was consolidated, and

Parliament authorised the issue of Treasury Bills to pay it off, these bills were not issued to the public, but, by entries in the books of the Treasury, the necessary sum was drawn from the Trust Funds in hand, and invested in the bills. This was only a formal operation, as the money had already been loaned to the revenue, and the issue of the bills simply turned a floating debt into one for a fixed term.

The references to appropriations would be incomplete without the subjoined statement, which shows the total appropriations for the services of each year subdivided into three heads. The amounts given in the first two columns taken together represent the Estimates in-chief for each year:—

Year ending 31st December.	Amount appropriated during year.		Amount appropriated in subsequent years.	Total amount authorised to be expended from Consolidated Revenue from January, 1887, to June, 1898.
	Special appropriation (Fixed Statutory Liabilities).	Annual Votes.		
	£	£	£	£
1887	2,082,306	6,398,360	573,196	9,053,862
1888	2,090,326	6,416,595	632,064	9,138,985
1889	2,126,379	7,067,272	300,125	9,493,776
1890	2,481,145	6,742,928	585,110	9,809,183
1891	2,533,116	7,117,053	1,108,783	10,758,952
1892	2,756,958	8,045,007	486,448	11,288,413
1893	2,924,195	7,105,478	483,485	10,513,158
1894	3,028,297	6,750,537	425,123	10,203,957
*1895	1,472,412	3,405,451	45,476	4,923,339
†1896	2,759,564	6,705,697	26,331	9,491,592
†1897	2,663,223	7,259,663	....	9,922,856
†1898	2,936,937	6,635,460	....	9,572,397

* Six months ended 30th June. † Twelve months ended 30th June.

It will be noticed that there is a large annual expenditure provided for under Special Acts apart from the annual appropriations of Parliament. The special appropriations form a primary charge on each year's revenue collections.

GENERAL BANKING ACCOUNT.

The subjoined table has been inserted in order to make clear the Government banking operations. It shows each of the main accounts under which the Government conducts its financial business, as the subsidiary accounts are operated on under one or other of the headings enumerated. The Audit Act defines that all the accounts coming under the Act shall constitute the Public Account ; however, for convenience of working, the Public Account includes only the Consolidated Revenue Fund, the Trust Funds subject to the Audit Act, and special suspense accounts. These accounts, with the General Loan Account, and the Trust Funds not subject to the Audit Act, form the " General Account." The cash side of this account for banking purposes is operated on under the "General Banking Account"; and, in establishing the daily balance, the aggregate of the credits is set against that of the debits, and so long as the former exceeds the latter the whole banking account is in credit. At the present time, the Trust Funds, to which attention will be subsequently directed, largely assist in keeping the account in credit. The state of the main divisions of the General Account on the 30th June, 1897, will be found below :—

Head of Account.		Credit Balances on 30th June, 1897.		
		Amount invested in Securities.	Credit Cash Balance.	Total.
		£	£	£
Public Account—				
Trust Funds (subject to Audit Act)		4,523,639	3,543,059	8,066,698
Consolidated Revenue Fund—	£			
Accumulated Debit ..	2,363,139			
Cr.—Treasury Bills current on 30th June, 1897	2,477,584			
Balance .. .. *Cr.*	114,445			
Special Suspense Accounts—				
General Post Office New-street Resumption Account .. .. *Dr.*	469,263			
Centennial Park Account .. .. *Dr.*	224,372			
Advances to General Loan Account .. *Dr.*	1,500,000	....	*Dr.* 2,079,190	*Dr.* 2,079,190
Credit Balance of "Public Account," on 30th June, 1897 .. .. £		4,523,639	1,463,869	5,987,508
General Loan Account		....	682,803	682,803
Trust Funds (not subject to Audit Act—				
Railway Loan Redemption Fund		....	75,000	75,000
New South Wales 1924 Stock Redemption Fund ..		....	13,204	13,204
New South Wales 1925 Stock Redemption Fund ..		....	14,817	14,817
Treasury Notes Withdrawal Account		....	110	110
Colonial Treasurer's Special Trust Accounts		318,554	184,359	502,913
Credit Balance of "General Account" on 30th June, 1897 .. .. £		4,842,193	2,434,162	7,276,355

CONSOLIDATED REVENUE FUND.

Since 1885 the state of the Revenue Account has been unsatisfactory, and the income has not been equal to the expenditure ; hence a large deficit has accumulated, or, more properly speaking, two deficits—that of 1886 and previous years, which was liquidated by Treasury bills issued during 1889 and 1890 ; and the deficit accumulated during the period subsequent to that date. The credit or debit balance of the Consolidated Revenue Fund for each year since 1870 was as follows:—

Year ending 31st Dec.	Gross Revenue including advances repaid.	Gross Expenditure including advances made.	Annual—		Accumulated—			
					Deficiency.			Surplus.
			Deficiency.	Surplus.	Treasury Bills outstanding.	Cash Overdraft.	Total.	
	£	£	£	£	£	£	£	£
1870	....	....	....	....	....	....	......	32,059
1871	2,727,404	3,126,147	398,743	....	....	366,684	366,684	......
1872	3,195,070	2,696,048	....	499,022	....	....	......	132,338
1873	3,395,897	2,603,166	....	792,731	....	....	......	925,069
1874	3,569,364	3,668,827	99,463	....	....	....	......	825,606
1875	4,584,410	4,299,024	....	285,386	....	....	......	1,110,992
1876	5,583,828	4,749,013	....	834,815	....	....	......	1,945,807
1877	5,883,246	5,477,979	....	405,267	....	....	......	2,351,074
1878	5,243,864	5,672,154	428,290	....	....	....	......	1,922,784
1879	5,507,986	6,089,151	581,165	....	....	....	......	1,341,619
1880	5,783,687	5,685,079	....	98,608	....	....	......	1,440,227
1881	7,377,787	5,890,580	....	1,487,207	....	....	......	2,927,434
1882	7,410,737	6,449,418	....	961,319	....	....	......	3,888,753
1883	6,670,582	8,048,319	1,377,737	....	....	....	......	2,511,016
1884	7,433,511	8,715,189	1,281,678	....	....	....	......	1,229,338
1885	7,589,296	8,815,733	1,226,437	....	....	....	......	2,901
1886	7,993,871	9,283,353	1,289,482	....	....	1,286,581	1,286,581	......
1887	8,683,943	9,556,657	872,714	....	....	2,159,295	2,159,295	......
1888	9,583,700	9,006,048	....	577,652	....	1,581,643	1,581,643	......
1889	9,350,347	9,474,778	124,431	....	1,907,100	*Cr.* 201,026	1,706,074	......
1890	9,951,600	9,861,077	....	90,523	2,352,884	*Cr.* 737,333	1,615,551	......
1891	10,184,371	10,595,666	411,295	....	2,202,884	*Cr.* 176,038	2,026,846	......
1892	10,876,152	10,794,360	....	81,792	2,052,884	*Cr.* 107,830	1,945,054	......
1893	10,178,004	10,527,885	349,881	....	1,902,884	392,051	2,294,935	......
1894	9,905,712	9,828,376	....	77,336	1,752,884	464,715	2,217,599	......
*1895	5,259,419	4,961,154	....	298,265	1,752,884	166,450	1,919,334	......
†1896	9,394,558	9,776,278	381,720	....	2,777,584	*Cr.* 476,530	2,301,054	......
†1897	9,469,681	9,531,766	62,085	....	2,477,584	*Cr.* 114,445	2,363,139	......

* Six months ended 30th June. † Twelve months ended 30th June.

The transactions in connection with the Consolidated Revenue Fund and the accumulated actual deficiency for the year ended 30th June, 1897, were as follow:—

Dr.			Cr.		
Gross Revenue collected during 1896-7—	£	£	Amount of Accumulated Deficiency of the Consolidated Revenue Fund on 30th June, 1896—	£	£
Taxation	2,458,074		Treasury Bills current on 30th June, 1896..	2,777,584	
Land Revenue	1,953,430		Cash Credit Balance on 30th June, 1896..	476,530	2,301,054
Receipts for services rendered	4,599,706				
General miscellaneous receipts	275,790				
Total Revenue ..	9,287,000		Payments during 1896-7—		
Advances repaid	182,681	9,469,681	For services of 1895-6 and previous years	30,309	
Debit Balance—			For services of 1896-7	9,289,820	
Treasury Bills current	2,477,584				
Cash Credit Balance..	114,445		Total payments	9,320,129	
			Advances made......	211,637	9,531,76
Actual Deficiency on the 30th June, 1897	......	2,363,139			
Total.......... £	......	11,832,820	Total .... £	......	11,832,8

REVENUE AND EXPENDITURE.

Reliable information respecting the revenue and expenditure of the lony dates from 1815, in which year the public receipts amounted to 21,639, and the expenditure to £19,980. From 1815 to 1840—the tter year being memorable in the annals of the colony as that in which ansportation ceased—the advance in the revenue was very rapid. In 40 the public receipts amounted to £683,112—a sum not again reached til 1853, two years after the discovery of gold. From 1853 to 1859 e revenue made great strides, and amounted to £1,522,668 for e year last mentioned. In December, 1859, the separation of eensland took place, and consequently a falling off in the revenue curred in the following year, the amount collected being £1,308,925. e gross and net revenue proper for the years given in the table were follow :—

Year.	Gross Revenue.	Refunds, including charges on collections.	Net Revenue proper.			
			Total.	Per Inhabitant.		
	£	£	£	£	s.	d.
1860	1,308,925	28,209	1,280,716	3	14	9
1865	1,771,162	38,680	1,732,482	4	6	8
1870	2,102,697	52,978	2,049,719	4	3	8
1875	4,121,996	100,360	4,021,636	6	17	7
1880	4,904,230	97,841	4,806,389	6	11	11
1881	6,707,963	156,829	6,551,134	8	11	3
1882	7,410,737	192,151	7,218,586	9	0	10
1883	6,470,341	243,720	6,226,621	7	8	7
1884	7,117,592	280,813	6,836,779	7	14	10
1885	7,587,368	206,817	7,380,551	7	19	2
1886	7,593,050	218,235	7,374,815	7	12	2
1887	8,582,809	205,854	8,376,955	8	6	9
1888	8,886,332	172,148	8,714,184	8	8	2
1889	9,066,941	191,211	8,875,730	8	6	5
1890	9,494,584	188,893	9,305,691	8	8	11
1891	10,036,185	263,405	9,772,780	8	10	11
1892	10,501,104	327,537	10,173,567	8	12	3
1893	9,706,734	207,482	9,499,252	7	16	11
1894	9,459,235	158,492	9,300,743	7	10	4
*1895	4,558,569	80,054	4,478,515	3	11	7
†1896	9,253,939	179,161	9,074,778	7	2	0
†1897	9,287,000	179,504	9,107,496	7	0	5

* Six months ended 30th June. † Twelve months ended 30th June.

The figures relating to revenue, both above and in subsequent tables, exclusive of "Advances repaid"; and in dealing with expenditure dvances made" have been excluded from consideration, as transactions der these heads do not affect the ordinary revenue and the expenditure refrom. The terms "net revenue" and "net expenditure," used both here and in subsequent pages, are to be taken as meaning revenue and expenditure freed from the transactions just mentioned.

The net expenditure for years corresponding with those in the revenue statement is given in the subjoined table, it being assumed that the accounts are on a cash basis—that is, that each year's business is complete within that year. The term used in the table, "expenditure from revenue of current year," must not be taken in a literal sense, as in only four years during the last decade has the revenue sufficed for the expenditure. This will be seen by comparing the annual expenditure given below with the revenue for the corresponding years shown in the preceding table:—

Year.	Net Expenditure.			Net Expenditure per Inhabitant.		
	From Revenue of current year.	From accumulated surplus.	Total.	From Revenue of current year.	From Accumulated Surplus.	Total.
	£	£	£	£ s. d.	£ s. d.	£ s. d.
1860	1,284,568	......	1,284,568	3 15 0	......	3 15 0
1865	1,696,127	......	1,696,127	4 4 10	......	4 4 10
1870	2,550,002	......	2,550,002	5 4 1	......	5 4 1
1875	3,240,964	......	3,240,964	5 10 11	......	5 10 11
1880	5,129,028	331,287	5,460,315	7 0 9	0 9 1	7 9 10
1881	5,218,226	407,523	5,625,749	6 16 5	0 10 8	7 7 1
1882	5,631,499	524,160	6,155,659	7 1 0	0 13 2	7 14 2
1883	6,818,303	732,065	7,550,368	8 2 8	0 17 6	9 0 2
1884	7,531,771	598,426	8,130,197	8 10 7	0 13 7	9 4 2
1885	8,113,510	241,610	8,355,120	8 15 0	0 5 3	9 0 3
1886	8,786,808	72,469	8,859,277	9 1 3	0 1 6	9 2 9
1887	8,976,102	13,815	8,989,917	8 18 8	0 0 4	8 19 0
1888	8,471,755	20,211	8,491,966	8 3 8	0 0 4	8 4 0
1889	8,995,751	5,693	9,001,444	8 8 9	0 0 1	8 8 10
1890	9,210,992	3,677	9,214,669	8 7 2	0 0 1	8 7
1891	10,065,606	......	10,065,606	8 16 0	......	8 16 0
1892	9,931,411	......	9,931,411	8 8 1	......	8 8 1
1893	9,931,658	......	9,931,658	8 4 1	......	8 4 1
1894	9,178,706	......	9,178,706	7 8 4	......	7 8 4
*1895	4,844,299	......	4,844,299	3 16 11	......	3 16 11
†1896	9,523,057	......	9,523,057	7 9 0	......	7 9 0
†1897	9,140,625	......	9,140,625	7 0 11	......	7 0 11

* Six months ended 30th June. † Twelve months ended 30th June.

From 1872 to 1877—years notorious for the wholesale alienation of the public estate—the yearly income was considerably in excess of the annual payments, with the result that a large surplus was created. The excess payments of 1878 and 1879 reduced the amount somewhat, but the surpluses of 1881 and 1882 considerably augmented the fund. After the year last mentioned, however, large withdrawals were annually made, and the fund became practically exhausted at the end of 188 Since that date the existing deficit has been accumulating.

SOURCES OF REVENUE.

The Revenue is classified under four heads—Taxation, Land Revenue, Receipts for Services Rendered (such as revenue from railways, tramways, water supply, sewerage, posts, telegraphs, and fees of various kinds); and General Miscellaneous Receipts. The net revenue falling under each of these four heads, during 1880 and subsequent years, is shown below :—

Year.	Net Revenue from—							
	Taxation.		Land Revenue.		Receipts for Services rendered.		General Miscellaneous Receipts.	
	Total.	Per Inhabitant.	Total.	Per Inhabitant.	Total.	Per Inhabitant.	Total.	Per Inhabitant.
	£	£ s. d.	£	£ s. d.	£	£ s. d.	£	£ s. d.
1880	1,379,065	1 17 10	1,605,327	2 4 1	1,585,635	2 3 6	236,362	0 6 6
1881	1,739,424	2 5 6	2,724,341	3 11 3	1,930,332	2 10 5	157,037	0 4 1
1882	1,861,663	2 6 8	2,797,470	3 10 1	2,347,623	2 18 9	211,830	0 5 4
1883	1,851,737	2 4 2	1,493,577	1 15 8	2,649,687	3 3 3	231,620	0 5 6
1884	2,100,713	2 7 7	1,579,021	1 15 9	2,910,275	3 5 11	246,770	0 5 7
1885	2,206,429	2 7 7	1,769,616	1 18 2	3,128,815	3 7 6	275,691	0 5 11
1886	2,552,506	2 12 8	1,543,958	1 11 10	3,046,692	3 2 10	231,659	0 4 10
1887	2,583,486	2 11 5	2,312,972	2 6 0	3,201,768	3 3 9	278,729	0 5 7
1888	2,626,097	2 10 8	2,210,638	2 2 8	3,601,381	3 9 7	276,068	0 5 4
1889	2,635,002	2 9 5	2,050,425	1 18 5	3,866,137	3 12 6	324,166	0 6 1
1890	2,704,043	2 9 1	2,158,645	1 19 2	4,121,008	3 14 10	321,995	0 5 10
1891	2,875,028	2 10 3	2,117,003	1 17 0	4,542,432	3 19 6	238,317	0 4 2
1892	3,345,265	2 16 8	2,055,564	1 14 10	4,527,867	3 16 7	244,871	0 4 2
1893	2,777,846	2 5 11	2,115,185	1 14 11	4,361,017	3 12 0	245,204	0 4 1
1894	2,688,693	2 3 5	2,078,751	1 13 7	4,236,631	3 8 6	296,668	0 4 10
*1895	1,288,781	1 0 7	1,037,683	0 16 7	1,989,248	1 11 10	162,803	0 2 7
†1896	2,493,622	1 19 0	1,976,240	1 10 11	4,299,219	3 7 4	305,697	0 4 9
†1897	2,396,412	1 16 11	1,898,835	1 9 3	4,558,626	3 10 4	253,623	0 3 11

* Six months ended 30th June. † Twelve months ended 30th June.

TAXATION.

Customs and Excise duties, License fees, Land and Income taxes, and Stamp duties represent the various forms of taxation in force in the colony; and if these are grouped under the generally accepted classes of indirect and direct taxes, it will be found that Customs and Excise duties and License fees comprise the indirect taxation, while the Land and Income taxes and the Stamp duties come under the latter head. Below will be found a statement showing the revenue derived from each sourc of taxation during 1895–97. No Land tax was collected in 1895–6.

Head of Revenue.	*1895.	†1896.	†1897.
Indirect Taxation—			
Customs :—	£	£	£
Import Duties :—			
Spirits, wine, ale, and beer......	347,370	728,998	748,612
Tobacco, cigars, cigarettes, and opium	130,090	262,834	273,955
Sugar and molasses	67,662	174,707	126,869
Grain and pulse	26,387	43,581	....
Other specific duties........... ...	194,254	392,061	124,089
Ad valorem duties.....................	192,350	212,222	4
Miscellaneous collections	5,076	10,816	7,186
Total, Customs	963,189	1,825,219	1,280,715
Excise :—			
Ale, beer, and porter	60,414	125,475	130,777
Duty on tobacco, cigars, and cigarettes	63,372	138,100	139,799
Other	5,367	8,251	6,561
Total, Excise	129,153	271,826	277,137
Licenses :—			
To retail fermented and spirituous liquors..............................	67,693	96,157	94,546
Other	14,669	26,952	26,993
Total, Licenses	82,362	123,109	121,539
Direct Taxation—			
Income Tax	....	27,658	305,316
Land Tax	....	....	141,022
			446,338
Stamp Duties :—			
Impressed and adhesive stamps...	53,217	112,240	121,278
Probate, administration, and settlement duty	56,801	136,060	143,428
Other	37,563	70,004	67,639
Total, Stamp Duties......	147,581	318,304	332,345
Gross Revenue from Taxation ...	1,322,285	2,566,116	2,458,074
Refunds	33,504	72,494	61,662
Net Revenue from Taxation	1,288,781	2,493,622	2,396,412

* Six months ended 30th June. † Twelve months ended 30th June.

The Customs tariff has undergone considerable change since 1871, and no less than five principal Acts and three important amending Acts dealing with the tariff have been passed during the interval. The Customs Duties Act of 1895, assented to on the 12th December, 1895, provided for the abolition of all import duties hitherto in force, either the 1st January, 1896, or on a later date named therein; the articles excepted being spirits, wines, beer, tobacco, cigars, cigarettes, opium, the duties on which remained the same as before. The owing are the tariff changes since May 1871 :—

e when assed.	Act.	To take effect from	Alterations made.
ay, 1871	34 Vic. No. 21 (repealing all previous Acts).	9 Mar., 1871	Specific duties largely increased. *Ad Valorem* duties of 5 per cent. imposed.
ov., 1873	37 Vic. No. 5 (repealing parts of 1871 Act).	1 Jan., 1874	The number of articles subject to duty reduced. Duty imposed on Sarsaparilla containing more than 25 per cent. of proof spirit. *Ad Valorem* duties of 5 per cent. abolished.
b., 1880	43 Vic. No. 16 (amending Act).	10 Dec., 1879	Duties on Spirits, Spirituous Compounds, and Wines increased.
ril, 1884	47 Vic. No. 10 (amending Act).	20 Feb., 1884	Duties imposed on Stearine and Cigarettes. Duties on Cigars, Tobacco, and Opium increased. The limit of under-proof allowance of spirits fixed at 16·5. The reputed contents of cases containing Spirits, Beer, and Wine regulated.
pt., 1886	50 Vic. No. 16 (repealing the 1871, 1873, 1880, and 1884 Acts, or the unrepealed portions of them).	7 April, 1886	The number of articles charged specific duties largely increased. *Ad Valorem* duties of 5 per cent. reimposed. Duty on Perfumed Spirits increased.
ly, 1887	51 Vic. No. 8 (repealing 1886 Act).	1 Oct., 1887	The number of articles charged specific duties considerably reduced. *Ad Valorem* duties of 5 per cent. abolished.
		1 May, 1887	Duties on Malt and Hops abolished.
		30 Mar., 1887	Duties on Spirits and Spirituous Compounds increased.
		30 Mar., 1887	New schedule of specific duties at lower rates.
ar., 1892	55 Vic, No. 16 (repealing 1887 Act).	2 Dec., 1891	The number of articles subject to specific duties increased. *Ad Valorem* duties of 10 and 15 per cent imposed.
		1 Jan., 1893	10s. per ton duty imposed on Pig-iron.
		1 Mar., 1892	Duty on Tea abolished.
ec., 1895	59 Vic. No. 18 (repealing 1892 Act).	1 Jan., 1896	Abolishes all duties previously levied, except those on Narcotics and Stimulants. Certain duties, viz., those on Sugar, Candles, Oils, Biscuits, Confectionery, Fruit, Jams and Jellies and Preserves, are gradually reduced over a period ranging from 1½ to 4½ years before being finally removed.

rior to 1884 the only excise duty in force was on locally-distilled its. In the year named, however, tobacco, cigars, and cigarettes nufactured in the colony were added to the list; and in 1887 an ise tax on beer was imposed, while the duty on distilled spirits was eased from 12s. to 14s. per proof gallon. Further particulars regard- customs and excise duties will be found in chapter dealing with nmerce.

he changes in the customs and excise tariffs during the past ten a half years can be traced in the figures given in the subjoined le, which represent the net collections under each head. It will be noticed that the largest revenue from customs and excise duties was collected during 1892 :—

Year.	Net Revenue from—			Per Inhabitant.		
	Customs.	Excise.	Total.	Customs.	Excise.	Total.
	£	£	£	£ s. d.	£ s. d.	£ s. d.
1887	1,933,179	204,008	2,137,187	1 18 6	0 4 1	2 2 7
1888	1,834,860	258,415	2,093,275	1 15 5	0 5 0	2 0 5
1889	1,868,652	260,136	2,128,788	1 15 1	0 4 11	2 0 0
1890	1,857,843	264,447	2,122,290	1 13 9	0 4 10	1 18 7
1891	2,132,414	287,026	2,419,440	1 17 4	0 5 1	2 2 5
1892	2,593,839	288,094	2,881,933	2 3 10	0 4 11	2 8 9
1893	2,076,817	264,167	2,340,984	1 14 3	0 4 5	1 18 8
1894	2,015,695	256,664	2,272,359	1 12 6	0 4 2	1 16 8
*1895	933,755	128,248	1,062,003	0 14 10	0 2 1	0 16 11
†1896	1,754,606	270,556	2,025,162	1 7 6	0 4 3	1 11 9
†1897	1,256,735	276,287	1,533,022	0 19 4	0 4 3	1 3 7

* Six months ended 30th June. † Twelve months ended 30th June.

The revenue from licenses exhibits little variation from year to year. The amount received during the year ended 30th June, 1897, distributed under the principal heads, was as follows :—

Licenses.	Amount.	Licenses.	Amount.
	£		£
Wholesale spirit dealers and brewers	6,930	Auctioneers	4,114
To retail fermented and spirituous liquors	94,546	Hawkers and pedlars	2,067
To retail Colonial wine, cider, and perry	1,700	Pawnbrokers	580
Distillers and rectifiers	106	Gunpowder Act	857
Billiard and bagatelle	6,832	Sale of tobacco and cigars	2,422
		Other	865
		Total	£121,539

The table does not include the revenue from licenses issued to fishermen, fishing-boats, bonded warehouses, and by the Mines Department.

In 1886 the Stamp Duties Act of 1880 was amended, the alterations being the abolition of the 1 per cent. general rate, and the adoption of a graduated scale of duties on the estates of deceased persons, classified as follows:—Where the value of the estate is under £5,000, 1 per cent.; £5,000 and under £12,500, 2 per cent.; £12,500 and under £25,000, 3 per cent.; £25,000 and under £50,000, 4 per cent.; over £50,000, 5 per cent. During 1893 an amendment was inserted providing for the exclusion from duty of estates valued at £200 gross and under that sum. The Bank Notes Act of 1893 provided for the increase of the annual composition duty on bank notes from 2 to 2½ per cent. on all notes issued within the colony. As the Act mentioned lapsed in November, 1895, the composition charged since that date has been at the old rate.

As already mentioned, the bulk of the Customs duties hitherto in force were abolished as from the 1st January, 1896, duties on stimulants and narcotics being alone permanently retained. To meet the revenue thus given up, taxes on land and incomes were sanctioned by Parliament. The land tax is at the rate of 1d. in the £ on the unimproved

, with an exemption of £240 on all estates, and a special exemption vour of municipal corporations and religious, educational, and institutions of a like character. Where land is mortgaged the r is also allowed to deduct from the tax a sum equal to 6d. in the the interest paid on the mortgage. The income tax is levied on ncomes earned in the colony but not directly derived from the rship, use, or occupancy of land, whether improved or not, and is e rate of 6d. in the £ on all incomes, subject to a general exemption 200. The total amount of income tax collected during the year ng 30th June, 1897, was £305,316. The first collections under the tax were made in October, 1896, and by the 30th June, 1897, a of £141,022 had been collected.

e subjoined table gives the gross and net amounts of taxation cted during the period from 1880 to 1897, and the alterations referred the various duties may be traced in the return presented :—

r.	Indirect.			Direct.			Gross Revenue from Taxation.	Refunds	Net Revenue from Taxation.
	Customs.	Excise.	Licenses.	Stamps.	Income Tax.	Land Tax			
	£	£	£	£	£	£	£	£	£
	1,225,440	7,354	112,197	72,303	....	....	1,417,294	38,229	1,379,065
	1,458,676	3,705	115,964	192,503	....	....	1,770,848	31,424	1,739,424
	1,552,706	5,637	116,932	228,138	....	....	1,903,413	41,750	1,861,663
	1,546,857	12,193	117,683	214,975	....	....	1,891,708	39,971	1,851,737
	1,726,811	79,967	120,028	226,049	....	....	2,152,855	52,142	2,100,713
	1,759,955	116,497	122,695	253,504	....	....	2,252,651	46,222	2,206,429
	2,068,571	109,820	125,438	307,993	....	....	2,611,822	59,316	2,552,506
	2,011,947	204,420	126,432	321,749	....	....	2,664,548	81,062	2,583,486
	1,883,058	259,576	129,591	409,658	....	....	2,681,883	55,786	2,626,097
	1,905,883	261,371	130,396	379,519	....	....	2,677,169	42,167	2,635,002
	1,888,321	265,887	133,156	460,975	....	....	2,748,339	44,296	2,704,043
	2,168,265	288,198	133,103	326,778	....	....	2,916,344	41,316	2,875,028
	2,677,890	289,603	132,500	349,794	....	....	3,449,787	104,522	3,345,265
	2,127,645	265,554	129,644	311,723	....	....	2,834,566	56,720	2,777,846
	2,065,839	258,122	124,677	297,062	....	....	2,745,700	57,007	2,688,693
	963,189	129,153	82,362	147,581	....	....	1,322,285	33,504	1,288,781
	1,825,219	271,826	123,109	318,304	27,658	....	2,566,116	72,494	2,493,622
	1,280,715	277,137	121,539	332,345	305,316	141,022	2,458,074	61,662	2,396,412

* Six months ended 30th June. † Twelve months ended 30th June.

LAND REVENUE.

New South Wales, as well as in the other colonies in the group, whole of the receipts from the sale and occupation of Crown lands treated as public income. The proceeds from occupation, being , can with consistency be regarded as an item of revenue; but the tment of the proceeds of auction, conditional purchase, and other es of sales as ordinary revenue is open to grave objection.

he revenue derived from lands may be grouped under three main ls—(*a*) auction sales and other forms of unconditional sale; (*b*) litional sales or lands disposed of under the system of deferred payts; (*c*) rents from pastoral, mining, and other classes of occupation. first two sources have been amalgamated under the head of alienation; while the last is classed as occupation.

More than half the annual receipts from land are receive
alienation, as will be seen from the following table, which gi
detail the revenue from 1895 to 1897 :—

Head of Revenue.	*1895.	†1896.
Alienation.		
Sales, etc. :—	£	£
Auction sales	32,242	60,349
Other	4,136	7,547
Total	36,378	67,896
Conditional Purchases :—		
Deposits and improvements	23,717	28,199
Instalments and interest	682,747	893,549
Interest (under Act of 1861)	71,989	80,755
Balances	63,253	63,838
Homestead Selections	....	3,386
Total	841,706	1,069,727
Total, Alienation	878,084	1,137,623
Occupation.		
Pastoral :—		
Pastoral leases	2,744	344,634
Conditional leases	64,544	155,501
Occupation licenses	9,923	126,216
Homestead leases	38,491	77,100
Annual and other leases	7,256	53,277
Quit rents	323	611
Total	123,281	757,339
Mining :—		
Mineral leases	2,785	11,093
Leases of auriferous lands	4,115	15,069
Miners' rights	9,964	10,857
Royalty on minerals	3,153	9,221
Other	1,485	2,910
Total	21,502	49,150
Total, Occupation	144,783	806,489
Miscellaneous Land Receipts.		
Survey fees	11,117	23,411
Rents, special objects	6,595	16,780
Timber licenses, royalty, etc.	3,430	6,631
Other	9,343	26,802
Total	30,485	73,624
Gross Revenue from Lands	1,053,352	2,017,736
Refunds	15,669	41,496
Net Revenue from Lands	1,037,683	1,976,240

* Six months ending 30th June. † Twelve months ending 30th June.

The annual income from public lands has varied considerabl
the 1861 Act became law. In 1864 the minimum revenue was r
the gross amount received being only £297,866, equivalent to 1
per inhabitant; while in 1877, the year of maximum revenue, th
receipts amounted to £3,236,277, or £5 2s. 11d. per inha
Prior to the passing of the 1884 Act the whole area of Crow
was available for free selection, including the areas held under p
leases. The Act mentioned, however, improved the condition

pastoralist by granting him fixity of tenure of one half of his run for a term of years, the leasehold half being exempt from conditional purchase during his tenure; but the leases were appraised at a higher rent, which considerably increased the revenue from this source in the following years. In 1890 an Act was passed under which the rents of Crown leases, as appraised in 1884, were determined anew; and in cases in which the new appraisement was less than the previous one, the Government refunded the amount which had been overpaid, with interest at 5 per cent. The first refunds under the Act were made during 1892, in which year the amount, including interest, was £128,259, while the corresponding amount for 1893 was £392, and for 1894—the last year in which a refund was made—only £32.

Prior to the passing of the 1884 Act the only forms of lease granted were pastoral, annual, special, and pre-emptive. Under the Act mentioned provision was made for the continuance of each of these forms of lease except the pre-emptive, which was abolished; and occupation licenses, and conditional and homestead leases, were established. The supplementary Act of 1889 provided for five additional forms of lease, which were as follow:—Scrub, snowland, artesian well, residential, and inferior land. Under the Land Act of 1895 three new forms have been provided for.

The gross revenue derived from alienation and occupation, and the gross and net land revenue, from 1880 to 1897, were as follow:—

Year.	Alienation.		Occupation.		Gross Revenue from Lands.	Refunds.	Net Revenue from Lands.
	Sales, etc.	Conditional Purchases. ‡	Pastoral. §	Mining, etc. ‖			
	£	£	£	£	£	£	£
1880	731,353	650,674	237,660	26,749	1,646,436	41,109	1,605,327
1881	1,415,460	1,067,879	309,170	28,480	2,820,989	96,648	2,724,341
1882	1,306,300	1,148,741	430,417	28,936	2,914,394	116,924	2,797,470
1883	338,234	931,235	358,957	27,643	1,656,069	162,492	1,493,577
1884	411,202	952,281	344,096	45,765	1,753,344	174,323	1,579,021
1885	535,508	778,849	517,156	44,939	1,876,452	106,836	1,769,616
1886	375,458	830,965	391,749	45,846	1,644,018	100,060	1,543,958
1887	349,585	872,192	1,100,423	56,795	2,378,995	66,023	2,312,972
1888	316,034	896,249	941,521	114,449	2,268,253	57,615	2,210,638
1889	214,691	934,480	917,491	70,901	2,137,563	87,138	2,050,425
1890	225,387	1,153,377	785,116	79,159	2,243,039	84,394	2,158,645
1891	191,696	1,154,979	848,960	71,001	2,266,636	149,633	2,117,003
1892	224,164	1,015,175	915,378	59,345	2,214,062	158,498	2,055,564
1893	252,782	1,044,710	849,652	59,123	2,206,267	91,082	2,115,185
1894	234,408	1,052,198	789,278	49,291	2,125,175	46,424	2,078,751
*1895	36,378	852,823	139,219	24,932	1,053,352	15,669	1,037,683
†1896	67,896	1,093,138	800,921	55,781	2,017,736	41,496	1,976,240
†1897	68,599	1,082,516	748,780	53,535	1,953,430	54,595	1,898,835

* Six months ended 30th June. † Twelve months ended 30th June. ‡ Includes Survey Fees. § Includes all Miscellaneous Receipts except Survey Fees and Timber Licenses. ‖ Includes Timber Licenses.

The land policy of the colony, though largely connected with its finances, will be more properly discussed in the part of this work dealing with land settlement. It may here be sufficient to say that the large revenue obtained from the sale of Crown lands during the years preceding 1883 was not due to the demand created by the normal progress of settlement, but was the outcome of an unhealthy rivalry between the two principal classes of settlers—the pastoral tenants and the free selectors. The estate of the country was being parted with without any conditions as to improvements or settlement; and as the great object of land sales was not so much to obtain revenue as to promote settlement, it was decided to sell by auction only a limited area (200,000 acres) during any one year. To this determination is to be attributed the falling off in the revenue under the head of sales for 1883 and all subsequent years.

RECEIPTS FOR SERVICES RENDERED.

Receipts from the railways and tramways, water supply and sewerage, and post and telegraphs constitute the bulk of the revenue from services, the balance under this head being made up chiefly of dues and fees of various kinds.

The total revenue has considerably increased of late years, and so also has the expenditure, the figures shown being not wholly an index of progress. The only services which can be considered as self-supporting—that is to say, yielding sufficient revenue to cover working expenses and interest on capital debt—are the railways, tramways, the metropolitan water supply and sewerage, and the Hunter district water supply, the first mentioned showing a surplus for the year 1896-7 after an interval of fifteen years. The gross receipts received under the head of each service during the period 1895 to 1897, were as follow:—

Service.	*1895. £	†1896. £	†1897. £
Railways	1,310,793	2,866,012	3,060,681
Tramways	144,180	290,515	306,871
Post and Telegraphs—			
Postage	214,078	476,399	488,974
Electric Telegraphs	75,705	148,548	159,280
Telephones	16,926	29,955	33,925
Commission on money orders, etc.	10,179	21,766	23,941
Water Supply and Sewerage—			
Metropolitan—Water Supply	81,215	166,078	172,358
Sewerage	43,432	84,453	86,592
Hunter District Water Supply	11,342	19,845	22,361
Public school fees	35,189	73,519	74,406
Pilotage, harbour and light rates, and fees	25,710	66,259	57,141
Mint receipts	6,854	14,333	12,9[illegible]
Miscellaneous services	41,206	97,108	100,9[illegible]
Gross revenue from Services	2,016,809	4,354,790	4,599,7[illegible]
Refunds	27,561	55,571	41,08[illegible]
Net revenue from Services	1,989,248	4,299,219	4,558,6[illegible]

* Six months ended 30th June. † Twelve months ended 30th June.

The gross revenue derived annually from each of the principal services, and the net revenue from all sources, from 1880 to 1897, were as follow:—

Year.	Railways and Tramways.	Post and Telegraphs.	Water Supply and Sewerage (Metropolitan and Hunter).	Other Services.	Gross Revenue from Services.	Refunds.	Net Revenue from Services.
	£	£	£	£	£	£	£
1880	1,189,564	286,134	......	118,384	1,594,082	8,447	1,585,635
1881	1,459,684	330,414	......	154,977	1,945,075	14,743	1,930,332
1882	1,828,094	358,525	......	176,466	2,363,085	15,462	2,347,623
1883	2,081,128	403,794	......	181,810	2,666,732	17,045	2,649,687
1884	2,302,013	442,964	......	197,666	2,942,643	32,368	2,910,275
1885	2,492,691	472,564	......	203,208	3,168,463	39,648	3,128,815
1886	2,389,062	486,210	......	214,075	3,089,347	42,655	3,046,692
1887	2,510,335	524,298	......	211,273	3,245,906	44,138	3,201,768
1888	2,759,280	562,909	90,089	242,415	3,654,693	53,312	3,601,381
1889	2,875,135	597,988	147,071	301,573	3,921,767	55,630	3,866,137
1890	3,013,921	629,894	232,519	293,081	4,169,415	48,407	4,121,008
1891	3,439,283	648,553	245,821	266,197	4,599,854	57,422	4,542,432
1892	3,416,496	650,635	255,641	263,113	4,585,885	58,018	4,527,867
1893	3,253,272	643,849	275,954	238,867	4,411,942	50,925	4,361,017
1894	3,148,720	626,864	275,835	233,416	4,284,835	48,204	4,286,631
*1895	1,454,973	316,888	135,989	108,959	2,016,809	27,561	1,989,248
†1896	3,156,527	676,668	270,376	251,219	4,354,790	55,571	4,299,219
†1897	3,367,552	706,120	281,511	244,523	4,599,706	41,080	4,558,626

* Six months ended 30th June. † Twelve months ended 30th June.

The net revenue just given should be read with the rates per inhabitant for the same years, which will be found on page 863. The income derived by the Government of the country from services has, with little interruption, been steadily increasing; this, however, is only what would naturally be expected in a growing community, but it is satisfactory to be able to record that the income compared with the population has also been fairly well sustained, the check since 1892 being accounted for by the general depression. It will be seen from the table on page 863 that the rate per head in 1896-7 was £3 10s. 4d.; in 1886, £3 2s. 10d.; and in 1880, £2 3s. 6d. The increase in the return from services is undoubtedly largely due to the construction of railways, from which three-fourths of such revenue are derived. Compared with the population, the value of the production of the colony is enormous; but as much of this production is due to the largeness of the territory, and not directly to the labours of those who occupy it, its value will, under present conditions, cease to increase at the same rate as does the population; and, moreover, as the revenue from services naturally depends upon the amount of production, the rate per inhabitant will not only cease to increase, but will ultimately decline.

With the exception of 84½ miles of private railways, and 6¾ miles of private tramways, the services under these heads are those of State administration. According to a statement in the Auditor-General's Report for 1891, the Railway service yielded a small net profit, after all expenses had been met, in 1881 and 1882. Since those periods the net revenue did not equal the interest payable until the year 1896-7, when a surplus of £27,127 over working expenses and interest was secured.

It will be noticeable that during 1896-7 the revenue from both services increased; but as the expenditure also shows an increase, the gain to the country was not so great as the figures would appear to show. The tramways in 1888 paid only 1·98 per cent.; in 1892 and 1893 the net profit equalled 5·28 and 5·51 per cent. respectively; while in 1894 it declined to 4·07 per cent., and for the year ended June, 1897, a further decline to 3·98 was experienced. The questions of railway and tramway earnings and expenditure are dealt with at length in the chapter on internal communication.

The collections under the head of water supply and sewerage include the returns of the Boards operating in the metropolitan area and in the Hunter River district. These Boards form part of the local government scheme, and it is an open question whether the receipts and expenditure connected with them should be included in the general account. The loans from which the works have been constructed, however, form part of the public debt; and the interest payable is, therefore, rightly included as an item of the general accounts.

The Metropolitan Board was established in 1888, and the Hunter District Board in 1892. The operations of the Boards are more fully dealt with in the chapter dealing with local government.

The receipts from the Post, Telegraph, and Money Order services have increased year by year, but so also has the expenditure. The total receipts for the year ended December, 1896, according to the Departmental returns, were £833,941; and the expenditure was £872,471, showing a loss on the year's transactions of £38,530. If to this be added £32,182, the interest payable on the cost of buildings, and £35,579, the interest on the cost of construction of telegraph lines, the total loss during 1896 will be found to amount to £106,291.

These services are, as far as possible, conducted on commercial principles; nevertheless the desire of the Government to extend the facilities of both the post and the telegraph to every part of the colony has led to an expenditure which has in each year been in excess of the receipts. It is quite possible that the principle of affording the benefit of postal and telegraphic communication to every district in New South Wales would be adhered to even if the system ultimately failed to become self-supporting.

The balance of the revenue collected under the head of services consists of fees of office, public school fees, pilotage and harbour dues, and other items. The revenue derived from these services, however, is merely nominal, as the cost of the work performed in nearly every case far exceeds the receipts. The gross amount received under each head during the year ended 30th June, 1897, was :—

	£
Fees of office	95,965
Public school fees	74,406
Pilotage and harbour dues	57,141
Other fees	17,011
Total	£244,523

GENERAL MISCELLANEOUS RECEIPTS.

All items which cannot rightly be placed under one of the three great classes are grouped under the heading of "General Miscellaneous Receipts," the chief of which are "Rents, exclusive of land," "Fines and forfeitures," "Balances, transfers, and repayments," and similar accounts. The gross amount received under each of the main sub-heads, and the gross and net revenue received under the general head, for 1880 and subsequent years, were as shown below :—

Year.	Rents exclusive of Land.	Fines and Forfeitures.	Balances, Transfers, and Repayments.	Other Miscellaneous Receipts.	Gross Revenue from Miscellaneous Receipts.	Refunds.	Net Revenue from General Miscellaneous Receipts.
	£	£	£	£	£	£	£
1880	37,337	12,371	55,048	141,662	246.418	10,056	236,362
1881	53,785	14,416	19,588	83,262	171,051	14,014	157,037
1882	55,476	17,072	60,586	96,711	229,845	18,015	211,830
1883	45,781	19,798	64,686	125,567	255,832	24,212	231,620
1884	53,185	21,344	48,477	145,744	268,750	21,980	246,770
1885	51,258	22,007	68,660	147,877	289,802	14,111	275,691
1886	50,502	20,155	60,180	117,026	247,863	16,204	231,659
1887	51,095	18,355	61,427	162,483	293,360	14,631	278,729
1888	64,073	18,025	53,016	146,389	281,503	5,435	276,068
1889	66,825	15,378	110,839	137,400	330,442	6,276	324,166
1890	55,652	15,808	68,090	194,241	333,791	11,796	321,995
1891	70,643	19,537	44,481	118,690	253,351	15,034	238,317
1892	98,279	18,708	36,502	97,881	251,370	6,499	244,871
1893	88,337	17,774	54,669	93,179	253,959	8,755	245,204
1894	81,364	13,633	87,382	121,146	303,525	6,857	296,668
*1895	42,383	7,415	35,743	80,582	166,123	3,320	162,803
†1896	89,864	18,029	100,512	106,892	315,297	9,600	305,697
†1897	92,749	15,743	45,638	121,660	275,790	22,167	253,623

* Six months ended 30th June. † Twelve months ended 30th June.

HEADS OF EXPENDITURE.

The following table gives the net expenditure under the more important heads for each financial year since 1880. The amounts given herewith, as well as those shown on page 862, are exclusive of transactions under "Advances made," which, as mentioned previously, are not items of expenditure in the proper sense of the term :—

Year.	Net Expenditure on—						
	Railways and Tramways.	Post and Telegraphs	Water Supply and Sewerage (Metropolitan and Hunter).	Public Instruction.	Interest on Public Debt (Funded and Unfunded).	Other Services.	Total Net Expenditure.
	£	£	£	£	£	£	£
1880	790,686	387,147	......	400,740	685,094	3,196,648	5,460,315
1881	730,181	406,473	......	587,578	685,639	3,215,878	5,625,749
1882	1,015,803	429,930	......	623,701	766,398	3,319,827	6,155,659
1883	1,425,800	489,013	......	737,969	834,145	4,063,441	7,550,368
1884	1,558,955	525,001	......	827,290	1,012,322	4,206,629	8,130,197
1885	1,689,917	557,096	......	762,599	1,262,684	4,082,824	8,355,120
1886	1,670,170	591,058	......	751,021	1,549,679	4,297,349	8,859,277
1887	1,658,724	613,354	......	728,835	1,643,522	4,345,482	8,989,917
1888	1,781,876	593,437	16,536	683,883	1,702,595	3,713,639	8,491,966
1889	1,768,474	604,370	38,168	707,211	1,760,274	4,122,947	9,001,444
1890	2,013,451	625,015	61,282	727,910	1,857,656	3,929,355	9,214,669
1891	2,325,712	669,390	64,656	770,813	1,874,616	4,360,419	10,065,606
1892	2,120,177	732,829	70,492	858,543	1,715,096	4,434,274	9,931,411
1893	1,868,293	751,443	79,566	805,330	2,440,326	3,986,700	9,931,658
1894	1,712,515	733,042	75,126	738,410	2,255,255	3,664,358	9,178,706
*1895	864,013	385,176	39,681	391,339	1,133,566	2,030,524	4,844,299
†1896	1,848,749	726,557	74,869	758,199	2,262,997	3,851,686	9,523,057
†1897	1,800,027	700,905	69,565	707,111	2,267,861	3,595,156	9,140,625

* Six months ended 30th June. † Twelve months ended 30th June.

It will be noticed that the annual expenditure for the services named has, generally speaking, increased; the revenue has likewise grown, but not in a corresponding ratio. To establish the relative position of each, it will be necessary to place the accounts side by side. The figures given for the public debt apply only to interest expenditure; the amount paid for redemptions, which in point of volume is unimportant, and the expenditure incurred in the management and inscription of stock in London, including the payment of dividends, are included under the head of "Other Services." The falling off in the expenses of the public debt in 1892 was due to the non-inclusion of the sum of £288,750 paid in London during September of that year. The advice of this was received by the Treasury too late to admit of the amount being charged to the year mentioned, and the expenditure for 1893 was in consequence correspondingly increased.

EXPENSES OF GENERAL GOVERNMENT.

the figures already given of the revenue of the colony, it will been noticed that the amount received on account of services red—that is, the earnings of the railways, the tramways, the supply, and other departments—is included in the general revenue. is almost a matter of necessity so long as the expenditure includes est on the public debt incurred to promote these services. As a quence of this system, the annual cost of maintaining the services red to is also included in the expenditure. The figures given on 874 do not admit of a ready distinction being made between these inds of expenditure; but as the information is necessary for the right rstanding of the public accounts, the following statement has been iled. It shows the progress of expenditure as classified under headings—ordinary expenditure of general government, including est on capital liability of services connected therewith; and expene on services practically outside the administration of general rnment, such as railways, tramways, the Metropolitan and Hunter ict water supply and sewerage, and the interest on capital liability ch of the services enumerated. The figures for the period from 1887 97, and the rates per inhabitant, are as follow :—

r.	Net Expenditure.			
	On General Government.		On Services practically outside General Government.	
	Total.	Per Inhabitant.	Total.	Per Inhabitant.
	£	£ s. d.	£	£ s. d.
7	6,012,290	5 19 8	2,977,627	2 19 4
8	5,293,763	5 2 3	3,198,203	3 1 9
9	5,735,473	5 7 7	3,265,971	3 1 3
0	5,616,824	5 1 11	3,597,845	3 5 4
1	6,113,186	5 6 11	3,952,420	3 9 1
2	6,267,810	5 6 1	3,663,601	3 2 0
3	6,003,848	4 19 3	3,927,810	3 4 10
4	5,548,131	4 9 8	3,630,575	2 18 8
5	3,046,342	2 8 8	1,797,957	1 8 3
6	5,863,385	4 11 9	3,659,672	2 17 3
7	5,412,400	4 3 5	3,728,225	2 17 6

* Six months ended 30th June. † Twelve months ended 30th June.

Under the heading of the expenses of general government are included civil, military, and legal expenditure, and the cost of the post and telegraph services, education, and such public works as are constructed out of the ordinary revenue, also the interest payable where the proceeds of loans have been used to defray the cost of their construction. The expenditure per head of population on account of some of these services, viz., postal and telegraphic, educational, and others of less importance, has either been stationary or declining.

The general tendency in progressive communities is for the cost of government per inhabitant to decline as population increases; the operation of this law is traceable in the figures just given. During the period embraced in the statement, the cost of government has varied between £4 9s. 8d. and £5 19s. 8d., the years with the least expenditure per inhabitant being 1894, 1896, and 1897, and that with the highest, 1887. The position of the State as the constructor of small local works prevents that decrease in the expenses of general government which is so desirable, and the absence of a law placing the responsibility upon the districts concerned has necessitated the expenditure of large sums upon works only locally important and not strictly chargeable to the public revenue.

SPECIAL SUSPENSE ACCOUNTS.

The Centennial Park and the General Post Office New Street Resumption Accounts have been made Special Suspense Accounts. The former was first operated upon during 1887, and continued part of the Consolidated Revenue Fund Account till 1894, when it was placed in suspense; and the latter was opened in 1890, and formed part of the same account till 1892, when it was similarly dealt with. The Centennial Park account was established under the Centenary Celebration Act of 1887, and the other account under an Act passed in 1889, which was amended in 1892. The first-mentioned Act provided for resumption of a large area of land close to Sydney, 640 acres of which were to be set apart for the Centennial Park, and the residue to be sold and the proceeds of the sale used in reducing the expenditure incurred for the Park. The latter Act provided for the resumption of certain areas for the widening and general improvement of the street facing the General Post Office. The balance of the land not required for public purposes was to be sold, and the proceeds of sales set against the expenditure incurred for resumptions and alterations.

It will be noticed in the subjoined table that no sales have been effected under the Centennial Park Account; the area available for disposal, however, was prepared for subdivision during 1895. Under the other Account a portion of the land has been sold, and the balance, which occupies a very choice position, is being held pending a more favourable time for disposal. The large overdraft to each account was temporarily met from the trust funds. The position of each account on the 30th June, 1897, was as follows :—

Year.	Centennial Park Account.	General Post Office New Street Resumption Account.	
	Payments.	Receipts.	Payments.
	£	£	£
1887	20,285	....	....
1888	66,785	....	....
1889	56,913	....	....
1890	26,250	5,811	159,648
1891	27,561	24	177,730
1892	1,617	27,216	87,815
1893	....	102,523	29,947
1894	....	....	16,047
*1895	....	....	132,929
†1896	24,961	....	696
†1897	....	....	25
		135,574	604,837
Dr. Balance £	224,372	*Dr* £469,263	

* Six months ended 30th June. † Twelve months ended 30th June.

TRUST FUNDS.

The Trust Account forms a very important division of the public finances, not only from the nature of the transactions and the volume of accumulated funds, but also by reason of the manner in which the accounts are operated upon in conjunction with the general finances of the colony. To show the growing importance of the Trust Account, the following table has been compiled. In 1871 the amount at credit was £213,340 ; in 1881, £1,671,183 ; in 1891, £4,997,055 ; at the close of 1894, £6,544,001 ; on the 30th June, 1896, the very large amount of £7,657,741—an increase in a year and a half of £1,113,740; and on the 30th June, 1897, the sum of £8,672,742, a further increase of £1,015,001 :—

Year.	Amount.	Year.	Amount.	Year.	Amount.
	£		£		£
1871	213,340	1880	1,190,130	1889	3,175,484
1872	321,766	1881	1,671,183	1890	3,381,992
1873	472,437	1882	1,884,899	1891	4,997,055
1874	630,399	1883	2,200,896	1892	4,536,756
1875	757,909	1884	2,384,480	1893	5,859,503
1876	854,571	1885	2,515,110	1894	6,544,001
1877	1,006,425	1886	2,702,486	*1895	7,025,660
1878	990,284	1887	2,731,036	*1896	7,657,741
1879	986,729	1888	3,172,056	*1897	8,672,742

* 30th June.

The accounts of which the sum of £8,672,742 at credit at the middle of 1897 is the aggregate, are of a miscellaneous character, the largest being the Government Savings Bank Account of £4,436,737 ; the deposit of the Savings Bank of New South Wales, £2,165,000 ; the Civil Service Superannuation Account, £450,199 ; the Master in Equity's Account of £362,888, and the Railway Stores Account of £240,982. A complete list of the various accounts will be found on page 879. The Trust accounts are of two kinds—those opened with the Treasury by departmental arrangement or pursuant to the provisions of an Act of the Legislature, and voluntary deposits by public bodies or companies. The great bulk of the accounts are of the first kind, comprising £6,503,742, or nearly 75 per cent. of the gross total; the voluntary deposits amount to £2,169,000, the items making up the total being the deposit of the Savings Bank of New South Wales of £2,165,000 already mentioned, and the account of the William Roberts bequest, amounting to £4,000.

The existence of a large account upon which the Treasury is free to operate has been of no little assistance to the Consolidated Revenue in times past ; in fact, the Trust Funds form a strong reserve on which the Government may fall back in time of need. The great bulk of the funds bears interest, whether invested or not; but the power to use these funds enables the Government to effect a saving of interest, as similar accommodation from the banks could not be obtained under such favourable conditions. At the same time, it cannot be denied that the existence of the funds has been a strong temptation to extravagance, as without them it would not have been possible to have had the large excess of expenditure over revenue that has become so marked a feature of public financing since 1885.

As will be seen on page 880, a sum of £2,477,584 was advanced from the Trust Funds for the purpose of taking up Treasury Bills in aid of Revenue, while the advances to the Special Suspense Accounts were £693,635. Against these advances, however, must be placed the Credit Balance of the Consolidated Revenue Fund, viz., £114,445.

The trust funds may be divided into two classes—those coming under the provisions of the Audit Act, and subject to the direct operations of the Treasury; and those not subject to that Act, and operated upon by the officers in whose names they stand. Unlike the accounts belonging to the first-named class, the funds not subject to the Audit Act do not technically form part of the public account; nevertheless, for general convenience they are used in the General Banking Account. The distinction between the two classes of accounts has been maintained in the following table, which also shows how the various funds stood invested, and the amount at credit on the 30th June, 1897 :—

Fund.	Amount at Credit.	Distribution.		
		Amount Invested in Government Securities.	Amount uninvested.	
			On which Interest is paid.	On which Interest is not paid.
Subject to Audit Act.				
	£	£	£	£
Civil Service Superannuation Account (48 Vic. No. 24)	450,199	338,000	112,199	......
Public Instruction Endowment Account	195,016	193,872	......	1,144
Police Reward Fund	1,591	......	......	1,591
Police Superannuation Fund	2,042	......	......	2,042
Trust Moneys Account	282	......	......	282
Special Deposits Account—				
Government Savings Bank Account	4,436,737	3,793,367	643,370	......
Savings Bank of New South Wales Deposit Account	2,165,000	......	2,165,000	......
Assurance Fund, Real Property Act (26 Vic. No. 9)	156,430	140,900	......	15,530
Railway Construction Store Account	102,445	......	......	102,445
Railway Stores Account	240,982	......	......	240,982
Perpetual Trustee Company (Limited)	20,000	20,000	......	......
Permanent Trustee Company of New South Wales (Limited)	20,000	20,000	......	......
Municipal Council of Sydney Sinking Fund (50 Vic. No. 13)	25,597	6,500	19,097	......
Other Special Deposits	250,377	11,000	14,787	224,590
Total, subject to Audit Act	8,066,698	4,523,639	2,954,453	588,606
Not subject to Audit Act.				
Railway Loan Redemption Fund	75,000	......	......	75,000
New South Wales 1,924 Stock Redemption Fund	13,204	......	......	13,204
New South Wales 1,925 Stock Redemption Fund	14,817	......	......	14,817
Treasury Notes Withdrawal Account	110	......	......	110
Colonial Treasurer's—				
Master in Equity Account	362,888	276,770	86,118	......
Curator of Intestate Estates Account	67,550	......	67,550	......
Master in Lunacy Account	59,588	41,784	17,804	......
Registrar in Bankruptcy Account	1,638	......	1,638	......
Prothonotary Account	2,228	......	......	2,228
Registrar of Probates Account	9,021	......	9,021	......
Total, not subject to Audit Act	606,044	318,554	182,131	105,359
Grand total £	8,672,742	4,842,193	3,136,584	693,965

With the exception of a portion of the sum deposited in the Treasury by the Savings Bank of New South Wales, a general rate of 4 per cent. was allowed to 31st December, 1894, on all funds entitled to interest. On the 1st January, 1895, the rate was reduced to 3 per cent. on all accounts except those on which the old rates could not be altered till the terms of the existing arrangements had expired.

The table just given does not, however, fully illustrate the uses to which the trust funds have been put; the following figures are necessary to the proper understanding of an important phase of the public accounts. On the 30th June, 1897, of trust funds there were invested in—

	£
Debentures, Stock, and Miscellaneous Securities......	2,383,375
Treasury Bills	2,477,584
Fixed Deposits in Banks..	450,000
Advances to revenue to enable General Post Office New Street Resumption and Centennial Park Accounts to be kept in suspense......................	693,635
Advanced to General Loan Account	1,500,000
Used for general purposes	1,168,148
Total..	£8,672,742

As shown in a foregoing table, no interest is paid on £693,965 belonging to trust accounts deposited with the Treasury; while on the £4,860,959, in debenture stock and Treasury bills, the annual payment is £167,094, or at the rate of £3 8s. 9d. per cent.

The distribution of the fund on the 30th June, 1897, according to the rates of interest, was as follows:—

Securities, etc.	Rate of Interest per cent. per annum.			
	3	4	5	Total.
	£	£	£	£
Treasury Bills in aid of Revenue............	2,089,084	388,500	...	2,477,584
Funded Stock—				
New South Wales, 4 per cents.	....	403,249	...	403,249
New South Wales Funded Stock (56 Vic., No. 1)	....	1,147,260	...	1,147,260
New South Wales Funded Stock (58 Vic., No. 14)	30,000	....	...	30,000
New South Wales Funded Stock (59 Vic., No. 6)	380,000	....	...	380,000
New South Wales 1924 Stock	20,000	....	...	20,000
,, ,, 1925 ,, ...	150,000	... .	...	150,000
Debentures	....	224,400	9,700	234,100
Uninvested bearing interest	3,005,289	131,295	...	3,136,584
Total	5,674,373	2,294,704	9,700	7,978,777

It is the practice of the Treasury to place at fixed deposit the portion of the trust funds not invested and held in excess of immediate requirements; the amount so deposited was £450,000, viz., £300,000 with the Bank of New South Wales, and £150,000 with the City Bank of Sydney. According to the rates allowed, the amount of interest paid on these deposits was £8,250; the rates, however are liable to be varied according to the state of the working account of the trust funds. The total amount of interest received by the Treasury during the year ended June, 1897, on fixed deposits and other investments was £18,690, nearly the whole of which was earned by moneys belonging to the Trust Account.

All trust funds under the Audit Act remaining unclaimed for a period of two years, and balances of intestate and probate estates unclaimed after a lapse of six years, are transferred and surrendered to the Consolidated Revenue, and no person can legally claim moneys so dealt with; nevertheless, the Treasury invariably recognises and pays in all cases where an otherwise valid claim can be shown. The amount transferred to the Consolidated Revenue for each of the last ten and a half years is given below; the figures are gross, as the sum refunded cannot be given, but this is by no means considerable in any one year:—

Year.	Amount.	Year.	Amount.
	£		£
1887	18,247	1893	15,194
1888	22,101	1894	12,659
1889	52,735	*1895	18,017
1890	20,607	†1896	35,276
1891	16,713	†1897	21,588
1892	13,767		

* Six months ended 30th June. † Twelve months ended 30th June.

LOAN APPROPRIATIONS.

All items of expenditure to be provided for by loan are authorised under an Appropriation Act, in the same manner as the ordinary expenditure chargeable to the general revenue; a separate Act, however, must be passed before the money so appropriated can be lawfully borrowed. There is a further restriction to the expenditure of money, whether from loans or revenue, in the operation of the Public Works Act of 1888. Under the provisions of this Act, the question of the advisability of carrying out all works estimated to cost more than £20,000, except those connected with military and naval defence and he maintenance of railways, is referred by resolution of the Legislative Assembly to the Parliamentary Standing Committee appointed during he first Session of each Parliament. The Committee investigates and reports to Parliament, and the Assembly by resolution declares whether it is expedient or not to carry out the proposed work; and if the declaration is in the affirmative, a Bill embodying such resolution has to be passed before the authorisation is absolute. The Loan Act of 1897 authorised the raising of a loan of £1,988,152 for services shown in the subjoined table:—

Services.	Amount—		
	For which no provision is made for Sinking Fund.	For which provision is made for Sinking Fund.	Total.
	£	£	£
Railways—			
Existing Lines	300,000	....	300,000
Construction Branch	305,175	....	305,175
Tramways—			
Existing Lines	20,000	....	20,000
Construction	50,000	....	50,000
Harbours and Rivers	361,550	26,796	388,346
Sewerage Construction	22,580	....	22,580
Metropolitan Water Supply and Sewerage	142,250	....	142,250
Government Architect	163,250	58,460	221,710
Roads and Bridges	137,600	59,751	197,351
Department of Mines—			
Water Supplies for Minor Townships	10,000	....	10,000
Accommodation House, Jenolan Caves	3,900	....	3,900
Agricultural Colleges	....	5,000	5,000
Department of Public Instruction—			
Public Schools and Sites	50,000	....	50,000
Miscellaneous Services—			
Telegraphs and Telephones	50,000	....	50,000
Military Works	....	39,540	39,540
Other Services	....	5,100	5,100
Total for Works	1,616,305	194,647	1,810,952
To meet 5 per cent. Debentures due 1898			177,200
Total Loans Authorised during 1897			1,988,152

It will be seen that provision is made for redeeming a portion of the proposed loan by a sinking fund. This principle of redemption from revenue has been applied to expenditure on works or services whose value will disappear by the time the loan out of the proceeds of which they were constructed falls due.

The Loan Appropriations for each year from 1875 to 1897 are given in the subjoined table, the amounts proposed to be expended on public works being distinguished from those required for redemption of previous loans :—

Year.	Amount authorised—		
	For Public Works and Services.	For Redemption of Loans.	Total.
	£	£	£
1875	....	....	....
1876	2,236,000	....	2,236,000
1877	1,120,000	....	1,120,000
1878	....	....	....
1879	7,352,768	....	7,352,768
1880	1,262,000	....	1,262,000
1881	8,807,500	....	8,807,500
1882	....	....	....
1883	2,000,000	....	2,000,000
1884	14,388,303	....	14,388,303
1885	....	....	....
1886	3,115,393	....	3,115,393
1887	....	....	....
1888	3,641,305	1,390,600	5,031,905
1889	4,366,696	723,200	5,089,896
1890	4,982,957	2,038,800	7,021,757
1891	4,000,000	....	4,000,000
1892	4,414,568	....	4,414,568
1893	839,806	40,000	879,806
1894	1,690,662	832,000	2,522,662
1895	1,555,200	977,400	2,532,600
1896	2,205,576	65,800	2,271,376
1897	1,810,952	177,200	1,988,152

Loan Appropriations are invariably in excess of the amount actually required for expenditure, and it has frequently happened that beyond obtaining Parliamentary sanction no further action has been taken in regard to loans authorised to be raised, and the last statement of public accounts shows that loans to the extent of some thirteen millions were authorised, the bulk of which will in all probability never be issued.

LOAN ACCOUNT.

The Loan account was not established until 1853, although the system of raising money by loans was introduced as early as 1842. The first ten loans of the colony, which were issued under *Gazette* notices for immigration purposes, were raised on the security of the Land, or, as it was called, the Territorial Revenue; but only £329,700 was redeemed from that source, the balance being made a liability of the Consolidated Revenue, and as such eventually included in the Loan Account under the head of Redemptions. From 1853 to 1870 the proceeds of loans were paid into and formed part of the Consolidated Revenue Fund; but during the year last mentioned a different principle was introduced, and a separate account was opened apart from Revenue for each loan floated, while the amount then at credit of the old loans continued to be operated upon in conjunction with the Revenue Account until 1891, when the account was finally closed. The system of separate Loan Accounts continued for about nine years; but in 1879, under authority of the Loan Fund Amalgamation Act, the nine separate Loan Funds then existing were merged into one "General Loan Account," into which also the proceeds of all loans thereafter raised were to be paid. The present system is open to technical objection, as it admits of the expenditure of money on services for which no loan has been raised; but it has the great merit of saving interest, and rendering unnecessary the raising of loans when the Treasury has large sums in hand, the proceeds of former loans.

The following figures show the amount of loans raised from the commencement of the Loan Account to the 30th June, 1897, and the proceeds available for expenditure:—

Treasury Bills, Debentures, Inscribed and Funded Stock sold from 1842 to 30th June, 1897	£76,240,078
Discount, bonus, and charges	2,836,761
Net amount realised	£73,403,317
Add net amount transferred from Consolidated Revenue to make good amount short-raised	128,007
Add amount advanced from Consolidated Revenue	1,500,000
	£75,031,324
Less proceeds of old loans not included in Loan Account	724,733
Sewerage Works taken over from Municipal Councils, Ashfield and North Sydney	5,900
	730,633
Sum available for expenditure	£74,300,691

The use to which the sum just stated was put is shown in the following table. It will be observed that a sum of £12,595,130 for redemption of loans is included in the total; this amount was not, of course, an item of expenditure, but its inclusion is necessary to fully account for the total of £74,300,691, in which the original loans as well as the redemption loans were included :—

Expended on—		£
Railways		38,412,306
Tramways		1,861,493
Telegraphs and Telephones		935,396
Water Supply and Sewerage		7,786,584
Wharves		1,479,766
Docks		319,951
Harbours and Rivers		2,260,220
Public Buildings		2,609,774
Roads and Bridges		989,573
Fortifications and Military Works		1,242,006
Immigration		194,430
Public Instruction—School Buildings, etc.		403,820
Works in Queensland prior to separation		49,855
		£58,545,174
Redemptions—		
Loans redeemed from Proceeds of New Loans...	£11,395,130	
Treasury Bills in aid of Revenue paid off...	1,200,000	
		12,595,130
Treasury Bills in aid of Revenue current		2,477,584
Credit Balance of Loan Account on 30th June, 1896		682,803
Total (as shown on previous page)		£74,300,691

It will be seen that out of the total amount of £58,545,174 shown in the above statement, £50,795,496, or 87 per cent., has been expended on directly productive works yielding or capable of yielding revenue towards meeting the charges for interest. Besides the sum just referred to, £6,263,387 has been spent on other works of a permanent nature, such as roads and bridges, improvements to harbours and rivers, lighthouses, schools, and public buildings, which, though not directly productive, have been undertaken for the development of the resources of the colony, and for facilitating settlement. The balance of £58,545,174, viz., £1,486,291, has been expended on unproductive services, the items being £1,242,006 for fortifications and military works, £49,855 for public works in Queensland prior to separation, and £194,430 for the promotion of immigration. The figures last given represent the expenditure on immigration under responsible government, prior to the assumption of which £724,733 was expended on this service, making a total expenditure of £919,163 for the encouragement of immigration.

The loan expenditure on account of the various services from 1893 to 1896 was as follows :—

Head of Service.	1893.	1894.	*1895.	†1896.	†1897.
	£	£	£	£	£
Railways	987,375	508,069	235,245	378,094	434,329
Tramways	155,955	93,766	16,108	8,031	[illegible]
Telegraphs and Telephones	15,985	5,202	7,442	36,709	68,604
Water Supply and Sewerage—					
Water Supply—					
Metropolitan	53,852	24,117	27,204	88,189	101,319
Hunter District	......	......	2,218	16,753	[illegible]
Country Towns and Mining Townships	65,038	55,425	46,938	41,311	[illegible]
Sewerage—					
Metropolitan	141,223	204,499	84,707	154,754	167,783
Buildings and Stores	12,661	5,059	157	920	5,165
Country Towns	......	......	206	2,381	16,259
Water Conservation and Irrigation	65,157	32,566	11,736	48,297	97,179
Harbours and Rivers Navigation—					
Wharfs, including resumption	18,692	140,953	24,977	42,667	29,611
Docks	2	......	......	......	1,555
Harbours	59,437	41,578	44,550	94,087	55,829
Rivers	45,974	47,610	62,616	40,482	81,044
Navigation	23,729	160	1,591	15,088	[illegible]
Alteration of Dredges	......	......	......	......	[illegible]
Reclamation Works	......	......	......	......	[illegible]
Roads and Bridges	63,305	28,097	5,820	40,992	[illegible]
Fortifications and Military Works, and Naval Station, Sydney Harbour	51,797	48,979	11,624	21,975	11,102
Public Works, Buildings, &c.—					
Charitable Institutions	45,821	42,708	11,229	30,446	[illegible]
Administration of Justice	34,558	4,077	9,078	63,231	49,156
Educational	3,390	4,218	7,408	21,788	[illegible]
Public Instruction, School Buildings, &c.	33,093	2,000	109	1,006	[illegible]
Other Public Buildings and Works	38,080	40,963	32,173	79,726	[illegible]
Purchase of Sites and Erection of Buildings for Local Land Boards and Survey Offices	......	......	......	......	[illegible]
Forest Reserves, for thinning out and improving	......	......	13,489	39,518	[illegible]
Compensation for cancellation under Mining Act of 1889	......	......	......	4,353	[illegible]
To promote settlement under Crown Lands Act of 1895	......	......	......	......	[illegible]
	1,915,133	1,330,046	656,625	1,270,898	[illegible]
Less Repayment to Credit of Votes, &c. £	1,553	......	......	......	......
	1,913,580	1,330,046	656,625	1,270,898	[illegible]
Municipal Works taken over by the State: (the expenditure on these Works is not rightly chargeable to the years in which the transfers were made)	16,000	......	2,500	8,200	......
Total Expenditure on Public Works, &c. £	1,929,580	1,330,046	659,125	1,279,098	[illegible]
Loans repaid by New Loans (including Treasury Bills)	40,300	1,250,400	821,900	1,224,200	[illegible]
Total £	1,969,880	2,580,446	1,481,025	2,503,298	[illegible]

* Half-year ended 30th June. † Year ended 30th June.

As will be seen by the foregoing statement, the proceeds of loans were devoted to services of a miscellaneous character, but the bulk of the expenditure was for the construction of works likely to be revenue-bringing, or for services deemed necessary for the proper development of the colony. Thus it will be seen that during the four and a half years ended 30th June, 1897, £2,562,822 has been expended upon railways, £296,495 on tramways, £134,002 on telegraphs and telephones, £574,777 on water supply for the Metropolitan and Hunter River Districts and Country Towns and Mining Townships, £795,765 on sewerage for the Metropolitan District and Country Towns, and £254,935 for Water Conservation and Irrigation. For the purpose of thinning out the forest reserves of the colony, with the object of improving the character of the timber remaining, an amount of £64,009 has been spent, and £36,678 has been disbursed on the general improvement of Crown Lands to promote settlement under the Crown Lands Acts in force. It must, however, be confessed that there has been some expenditure on works and services for which there will be in a few years no substantial assets remaining. Items of this kind it is intended in future to pay for altogether out of revenue, or if out of loans, to provide for their ultimate payment out of revenue by means of a sinking fund.

In the early stages of Australasian borrowing the expenditure was moderate, loans were hard to raise, and interest high; but latterly, as the conditions under which loans could be contracted became favourable, especially since 1875, few of the colonies set any bounds to their requirements. It was a repetition of the old experience, the opportunity engendered the desire, and the open purses of the investors tempted the colonies to undue borrowing and lavish expenditure. What is termed a "vigorous public works policy" was the order of the day, and works were pressed forward which under other circumstances would not have been undertaken, or have been held back until the growth of population warranted their construction. The plethora of money has been harmful in many ways, but is most apparent in the construction of not a few branch railways in outlying and sparsely-settled districts which do not pay even their working expenses, with the consequence that the interest on loan capital has to be met out of general revenue, and in some instances the present generation will pass away before this condition of affairs will be remedied. But when every allowance has been made for unwise or improvident expenditure, it will be found that by far the larger portion of the proceeds of loans has been well expended. In some instances, as the subsequent pages show, it will be years, taking a most hopeful view of the situation, before the revenue-producing works as a whole will yield a sum sufficient to pay working expenses and interest; nevertheless, a practical consideration of the conditions which surround Australasian settlement will demonstrate that in some instances the construction of these works was justifiable, for apart from the certainty that they will ultimately be self-supporting, they have already materially assisted in developing the country's resources, and have largely enhanced the value of the public estate.

The loan expenditure, exclusive of payments on account of redemptions, during each year and up to the end of each period since 1880, was as follows:—

Year.	During each year.				At the close of each year.			
	Amount.	Per inhabitant.			Amount.	Per inhabitant.		
	£	£	s.	d.	£	£	s.	d.
1880	1,668,638	2	5	8	16,395,351	21	18	5
1881	2,397,368	3	2	8	18,792,719	24	0	7
1882	2,832,759	3	10	11	21,625,478	26	10	8
1883	3,265,711	3	15	10	24,891,189	28	18	0
1884	3,674,706	4	3	2	28,565,895	31	11	4
1885	3,896,145	4	4	0	32,462,040	34	3	9
1886	3,766,356	3	17	8	36,228,396	36	12	5
1887	1,965,019	1	19	1	38,193,415	37	8	8
1888	2,076,307	2	0	1	40,269,722	38	6	3
1889	1,464,900	1	7	6	41,734,622	38	11	7
1890	2,299,751	2	1	9	44,034,373	39	5	0
1891	4,750,167	4	3	1	48,784,540	41	17	3
1892	3,014,680	2	11	0	51,799,220	43	5	0
1893	1,929,580	1	11	11	53,728,800	43	18	4
1894	1,330,046	1	1	6	55,058,846	43	19	11
*1895	659,125	0	10	7	55,717,971	43	18	9
†1896	1,279,098	1	0	1	56,997,069	44	3	10
†1897	1,548,105	1	3	10	58,545,174	44	12	10

* Six months ended 30th June. † Twelve months ended 30th June.

Previous to 1875 the loan expenditure on works was moderate, and calls for no special comment. In the year named, however, the amount spent was more than double that of 1874, and that year may be considered the starting-point of the vigorous public works policy already alluded to. The figures in the table speak for themselves. In regard to the year 1891, and in some degree to 1892, it may be as well to note that there was a large expenditure on account of quadrupling a portion of the main line in the metropolitan area—a work of urgent necessity, without which the Railway Commissioners professed themselves unable to work with safety and efficiency the large interests entrusted to them. Besides this expenditure, a sum of £1,000,000 was expended on reconstruction of rolling stock and permanent way, which, being for renewals, was properly a charge against working expenses, but the sum was advanced to the Commissioners from the General Loan Account in accordance with a special Act of the Legislature, to be repaid by them presumably out of the earnings of the railways under their control—the annual payment in redemption of the advance being fixed at £75,000. It has been pointed out in various parts of this chapter that the railways did not, until the financial year 1896–7, earn sufficient to meet the whole of the annual interest chargeable on the debt liability, so that the payment of the instalment in the manner provided an impossibility; and although the sum of £75,000 appears in the public accounts as being repaid from railway earnings, it is in reality a charge on the general revenue of the colony.

The growth of the loan expenditure, so marked in the past decade, is hardly likely to be continued, as apart from the salutary check imposed by the investigations of the Parliamentary Standing Committee on Public Works, railway construction, for which most of the loans have been raised, will in the future be confined to perfecting the various systems in operation, and to the gradual extension of the coast lines north and south.

PUBLIC DEBT.

When in 1831 it was decided to abolish the system of free land grants, and to dispose of the public estate by auction in lieu of private tender, it was also decided that the proceeds of land sales should be paid into what was called the Land Fund, from which were to be paid the charges incident to the introduction of immigrants; and it was from the inability of the Land Fund to meet these charges that the public debt of New South Wales first had its rise. From 1831 to 1841 the Land Fund was sufficient, but in the year last named the engagements for immigration purposes were so heavy that it became necessary to supplement the Fund in some way, and for this purpose it was decided by the Governor to borrow on the security of the Territorial or Land Revenue. Accordingly, on the 28th December, 1841, a debenture loan of £49,000 was offered locally under *Gazette* notice. This loan was issued during 1842 in two instalments, the nominal rates of interest being 5¼d. and 4d. per cent. respectively per diem. The loan at the higher rate was raised at par, and the other at a discount of 2 per cent. This was the first loan floated in the colony, as well as the first raised by any of the Australasian Governments. Including those just mentioned, there were issued between the years 1842 and 1855 ten loans, amounting in the aggregate to £705,200, the proceeds of which were devoted to the furtherance of immigration. Debentures representing these immigration loans were redeemed to the value of £329,700 from the Territorial Revenue, while the balance of £375,500 was taken over as a liability on the general revenue of the colony, and ultimately became incorporated in the public debt. In addition to the Immigration Loans, there were others, six in number, authorised by Acts of Council. These were not all issued until after responsible government was proclaimed. Under the authority of the above mentioned Acts, the first instalment of a loan for £683,300 was placed on the London market during the years 1854 and 1855. This was the first Australasian loan issued in England, and the forerunner of numerous others, representing a liability of over £227,000,000 outstanding in 1897.

GROWTH OF DEBT.

The Public Debt in November, 1855, when responsible government was proclaimed, was £1,000,800, distributed under the following heads :—

Raised on the Security of Territorial Revenue—	
Immigration	£423,000
Sydney Railway Company's Loan	217,500
Raised on the Security of General Revenue—	
Amount for Sydney Sewerage	54,900
,, ,, Sydney Water Supply	28,000
,, ,, Railways	256,400
,, ,, Public Works	21,000
Total	£1,000,800

Of the total shown above, £47,500 was redeemed out of the Territorial Revenue; the remainder, although afterwards nominally redeemed by new loans, in reality forms part of the existing public debt.

The debt outstanding at each quinquennial period is given in the subjoined table. It will be seen that the appetite for borrowing has increased with the growth of population. From 1850 to 1860 the average annual increase of indebtedness was £370,000; from 1860 to 1870, £585,000; from 1870 to 1880, £522,000; from 1880 to 1890, £3,348,000; and from 1890 to 1897, £1,950,000 :—

Year.	Amount.	Year.	Amount.	Year.	Amount.
	£		£		£
1842	49,500	1860	3,830,230	1880	14,903,919
1845	97,900	1865	5,749,630	1885	35,564,259
1850	132,500	1870	9,681,130	1890	48,383,333
1855	1,000,800	1875	11,470,637	*1897	61,074,498

* 30th June.

The increase has been most marked since 1880, the period covered by the following table, which contains the more important particulars necessary for a right understanding of the public loan accounts.

The amount of bonds or stock sold has been placed against the year in which the sales were effected, and not, as is the practice of the Treasury, against the year in which they were brought to account :—

Year ending on the 31st December.	Treasury Bills, Debentures, and Stock at close of each year—								
			Redeemed.			Unredeemed (Outstanding Public Debt).			
	Authorised.	Sold.	From Consolidated Revenue.	By New Loans.	Total.	Total.	Per Inhabitant		
	£	£	£	£	£	£	£	s.	d.
1880	27,333,964	17,986,519	1,371,870	1,710,730	3,082,600	14,903,919	19	18	6
1881	36,141,464	20,040,719	1,405,970	1,710,730	3,116,700	16,924,019	21	12	10
1882	36,141,464	22,040,719	1,608,770	1,710,730	3,319,500	18,721,219	22	19	5
1883	38,141,464	28,045,719	1,702,530	1,710,730	3,413,260	24,632,459	28	12	0
1884	51,824,267	33,550,719	1,738,030	1,710,730	3,448,760	30,101,959	33	5	3
1885	51,824,267	39,050,719	1,775,730	1,710,730	3,486,460	35,564,259	37	9	1
1886	54,939,660	44,550,719	1,805,740	1,710,730	3,516,470	41,034,249	41	9	6
1887	54,939,660	44,560,719	1,854,640	1,710,730	3,565,370	40,995,349	40	3	7
1888	60,056,565	48,188,619	1,897,740	2,197,830	4,095,570	44,093,049	41	19	0
1889	65,146,461	53,595,719	1,943,240	3,098,930	5,042,170	48,553,549	44	17	8
1890	74,929,218	54,331,503	2,131,240	3,816,930	5,948,170	48,383,333	43	2	6
1891	74,929,218	59,325,703	2,311,640	4,063,330	6,374,970	52,950,733	45	8	10
1892	83,119,494	62,837,203	2,501,340	5,862,430	8,363,770	54,473,433	45	9	8
1893	84,015,300	67,919,103	2,687,340	5,902,730	8,590,070	59,329,033	48	9	11
1894	86,537,962	69,058,533	2,879,250	7,153,130	10,032,380	59,026,153	47	3	4
*1895	86,540,462	69,086,213	2,890,250	7,975,030	10,865,280	58,220,933	45	18	2
*1896	87,257,462	74,673,353	3,062,750	9,199,230	12,261,980	62,411,373	48	7	9
*1897	89,533,238	76,240,078	3,764,550	11,401,030	15,165,580	61,074,498	46	11	5

* 30th June.

In dealing with the figures under the head of loans redeemed, it must be borne in mind that the loans paid off from revenue can alone be said to be redeemed. Where an old loan is redeemed out of the proceeds of subsequent loans, there is merely a change in the form of the liability, with, as a rule, some reduction of the interest charge.

The following table shows the annual payments under each head for interest and expenses of the public debt since 1887. For the year 1893 the figures shown for interest do not represent the actual liability of that year, as the sum of £288,750, properly chargeable to 1892, was not brought to account until the following year, otherwise the figures are correct :—

Year.	Interest.	Redemptions (including premium on purchase of Debentures on account of Railway Loan, 31 Vic. No. 11).	Expenses connected with management of Inscribed Stock, Bank of England.	Commission paid to Financial Agents in England and New South Wales.	Annual Interest and Charges paid.	
					Total.	Per Inhabitant.
	£	£	£	£	£	£ s. d.
1887	1,643,522	50,773	11,903	3,563	1,709,761	1 14 0
1888	1,702,595	44,588	13,160	2,862	1,763,205	1 14 1
1889	1,760,274	49,519	14,426	4,292	1,828,511	1 14 4
1890	1,857,656	39,203	15,855	3,068	1,915,782	1 14 9
1891	1,874,616	105,400	16,680	2,389	1,999,085	1 15 0
1892	1,715,096	115,196	18,259	3,410	1,851,961	1 11 4
1893	2,440,326	111,897	19,057	1,384	2,572,664	2 2 6
1894	2,255,255	107,502	19,952	1,869	2,384,578	1 18 7
*1895	1,133,566	21,561	10,249	827	1,166,203	0 18 6
†1896	2,262,997	111,752	16,923	1,718	2,393,390	1 17 5
†1897	2,267,861	116,113	18,626	2,353	2,404,953	1 16 8

* Six months ended 30th June. † Twelve months ended 30th June.

At present the net revenue from the public works of the country is entirely comprised in that derived from railways, tramways, and water supply and sewerage. Electric telegraphs, docks, and wharfs, although in the same category, do not at present yield a surplus. The water and sewerage works of the Metropolitan area are not yet completed, but these services are self-supporting; that is, the revenue is sufficient to meet the amount required to be expended on maintenance, management, depreciation, and interest on capital liability. When, however, these undertakings are completed, and the railways are in full operation, the sum available to meet interest and other charges on the public debt should leave little to be made good from the general revenue of the colony.

The public debt is partly funded and partly unfunded, the funded debt comprising debentures, inscribed and funded stocks; and the unfunded, Treasury bills. The two classes are defined by the difference in currency, the funded debt being long-dated loans, and the unfunded short-dated loans. Originally the term "funded" was applied only to interminable stocks, the amount of which, £532,889, is, as compared with the total debt, unimportant; but it is now the practice to apply this term also to redeemable debts. The amounts outstanding on the 30th June, 1897, under each class, and the total debt, were as follow :—

Description of Stock.	Amount outstanding, 30th June, 1897.		Annual Interest thereon.
	£	£	£
Funded Debt—			
Debentures—			
Overdue, or unpresented, which have ceased to bear interest	3,650	....	....
Still bearing interest	10,691,500	....	452,528
N. S. Wales 4 per cents. (Interminable)...	530,189	....	21,208
N. S. Wales Funded Stock, 56 Vic. No. 1	2,549,350	....	101,974
N. S. Wales Funded Stock, 58 Vic. No. 14	863,947	....	25,918
N. S. Wales Funded Stock, 59 Vic. No. 6	520,458	....	15,614
N. S. Wales 1924 Stock	198,065	....	5,942
,, 1925 ,, ...	222,255	....	6,668
Inscribed Stock	43,432,820	....	1,546,479
Total, Funded Debt...............	....	58,591,914	....
Unfunded Debt—			
Treasury Bills (for Loan Services)—			
Overdue or unpresented, which have ceased to bear interest..................	5,000	....	....
Treasury Bills (Deficiency in Revenue)......	2,477,854	....	78,212
Total, Unfunded Debt............	....	2,482,584	....
Total Public Debt..................	....	61,074,498	2,241,933

The following table shows the total amount of stock under each rate of interest. The stock bearing 6 per cent. represents the loans raised by the Municipalities of Sydney and Balmain for water and sewerage works, now taken over by the State. With the exception of municipal loans to the amount of £58,000 due in 1904, £2,700 in permanent stock, and £206,300 redeemable by annual drawings under Act 31 Vic. No. 11, all the loans bearing 5 per cent. interest will mature in or before 1902. There were, however, also overdue 5 per cent. debentures to the amount of £3,650 outstanding on the 30th June, 1897, which have ceased to bear interest :—

Interest—Per cent.	Amount of Stock.	Annual Interest thereon.
	£	£
6	94,500	5,670
5½	4,500	247
5	*2,292,850	114,460
4½	3,700	167
4	†21,458,939	858,158
3½	29,326,200	1,026,417
3	7,893,809	236,814
Total.........	61,074,498	2,241,933

* Includes £3,650 overdue debentures. † Includes £5,000 overdue Treasury Bills.

The 3 per cents. comprise the £4,000,000 floated in London during October, 1895 ; Funded Stock raised locally under Acts 58 Vic. No. 14 and 59 Vic. No. 6 ; and Treasury bills representing Trust Funds in the hands of the Government, and so invested. The whole of these Treasury bills bore interest at the rate of 4 per cent. to December 31, 1894, but the rate of interest on a large proportion was reduced to 3 per cent. from the 1st January, 1895.

DATES OF MATURITY.

The dates of repayment extend from 1898 to 1935; the sums r payable in the different years vary considerably in amount, the larg sum in any one year being £16,698,065 in 1924. The redemption such a large amount in one year is happily far distant, and before arrives a more satisfactory procedure in dealing with loans falling d will be devised than now obtains. The question of the consolidation loans has received some attention, and any scheme of consolidati adopted will probably provide for the principle of redemption over specified time, at the option of the Government, and not on a given d as is the present practice.

The following table shows the due dates and the amount repayal in each year:—

Class of Security.	Interest Rate.	Amount raised in— London.	Amount raised in— Sydney.	Total Out-standing.	Year when Due.
		£	£	£	
Debentures	5	3,300	350	3,650	Overdue.
"	5	....	177,200	179,700	1898.
"	6	....	2,500		
"	5	127,900	69,800	197,700	1899.
"	5	857,100	....	861,600	1900.
"	5½	....	4,500		
"	5	374,900	....	420,900	1901.
"	6	....	30,000		
"	5	16,000	....		
"	5	399,300	....	459,000	1902.
"	6	....	59,700		
"	4	1,000,000	....	1,003,700	1903.
"	4½	3,700			
"	5	58,000	....	58,000	1904.
"	6	....	2,300	903,800	1905.
"	4	901,500	....		
"	4	....	224,900	224,900	1906.
"	4	1,450,000	....	1,450,000	1908.
"	4	1,799,500	....	1,799,500	1909.
"	4	2,863,700	....	2,863,700	1910.
"	4	60,000	....	60,000	1912.
N.S.W. Funded Stock	4	....	2,549,350	2,549,350	
"	3	....	1,384,405	1,384,405	
Inscribed Stock	3½	12,826,200	....	12,826,200	1918.
" "	3½	16,500,000	....	16,500,000	1924.
N.S.W. 1924 Stock	3	....	198,065	198,065	
" 1925 "	3	....	222,255	222,255	1925.
Inscribed Stock	4	9,686,300	....	9,686,300	1923.
"	3	4,000,000	....	4,000,000	1935.
Debentures	5	206,300	....	206,300	Annual draw
N.S.W. 4 per cents.	4	....	530,189	530,189	Interminable.
Permanent Debentures	5	....	2,700	2,700	Permanent.
Funded Debt	..	53,133,700	5,458,214	58,591,914	
Treasury Bills (Defic. of Rev.)	3	....	2,089,084	2,089,084	£150,000 re-deemed annu
	4	....	388,500	388,500	
" " (For Loan Services)	4	5,000	....	5,000	Overdue.
Unfunded Debt	..	5,000	2,477,584	2,482,584	
Total Public Debt	..	53,138,700	7,935,798	61,074,498	

As will be seen in the above table, New South Wales is indeb to the London market for almost the whole of the money raised un oan. This dependence on the English market was originally due to the lack of local capital; but of late years, when such capital has been fairly abundant, the Government has still turned to London, where the rate of interest at which it could borrow was much below what would have been demanded by the local capitalists. The local and English rates are now much nearer than at any period in the history of Australia, and it is probable that the Government could place small loans almost as advantageously in Sydney as in London.

FINANCIAL AGENTS.

Since the inception of responsible government, the colony has had special local and London agencies to conduct its banking business. The Bank of New South Wales was first appointed, and under its auspices the first external loan of 1854 was issued. The Oriental Bank Corporation negotiated all subsequent loan issues until 1869, when the Bank of New South Wales again took up the management of loan operations in London. In 1884 the business was transferred to the Associated Banks, which were represented in England by the London and Westminster Bank. On the 31st December, 1889, the agreement with the Associated Banks came to an end, and on the first day of the succeeding year the London and Westminster Bank became the colony's authorised agent to transact such financial business connected with the London account as was not undertaken by the Bank of England, while the Associated Banks divided amongst them the local business. This arrangement continued until the crisis in 1893, when the Bank of New South Wales again became sole local agent for the Government. During 1895–6 a current account was opened at the City Bank of Sydney, and during 1896–7 a similar account was opened at the Commercial Banking Company of Sydney, Limited.

The Bank of England has been the colony's agent for the issue and management of stock since 1884, although this institution inscribed the bulk of the loan of 1882 and the two issues of 1883, negotiated in London by the Bank of New South Wales. Its charges for negotiation and management are, however, higher than those of the London and Westminster Bank, which acts in a similar capacity for Victoria, Western Australia, and Tasmania. The prestige of the former institution no doubt influenced the Government in its choice of an agent. Outside inscribed stock transactions the Government prefers accepting aid from other banks in issuing loans, and accordingly the London and Westminster Bank during 1892 and 1893 issued and negotiated £3,250,000 Treasury bills.

CHARGES ON FLOATING LOANS.

The charges incidental to the floating of an inscribed stock loan in England are heavy. The chief expense is the stamp duty of 12s. 6d.

per cent. to the British Government on inscribed stock. The other charges—bank commission, ½ per cent.; brokerage, ¼ per cent.; and minor expenses which amount to about 4d. per cent.—are for services rendered.

The expenses incurred for the inscription and management of stock by the Bank of England, through which New South Wales makes its issues, including the payment of the half-yearly dividends, are £500 per million for the first ten millions, £450 for the next five, and £400 per million for all subsequent amounts. Prior to March, 1895, the charges were £100 per million more in each case.

The subjoined statement gives the charges of negotiation of the two last loans issued by the colony in debenture form and of the inscribed stock loans floated during the period 1883-95:—

Year when Floated.	Amount of Principal.	Gross Proceeds.	Charges.				Expenses per £100 of—	
			Stamp Duty.	Bank Commission.	Brokers' Commission, Postage, and Petty Expenses.	Total.	Principal.	Gross Proceeds.
	£	£	£	£	£	£	£	£
			Issued (in London) as Debentures.—Bank of New South Wales.					
1881	2,050,000	2,120,697	2,562	3,813	5,298	11,673	0 11 5	0 11 1
1882	2,000,000	2,042,968	2,500	3,750	5,189	11,439	0 11 5	0 11 2
			Issued (in London) as Inscribed Stock.—Bank of England.					
1883	3,000,000	3,001,067	18,750	5,000	7,500	31,250	1 2 0	1 2 [illegible]
1883	3,000,000	3,018,791	18,750	5,000	7,809	31,559	1 2 3	1 2 1
1884	5,500,000	5,152,386	34,375	27,500	14,289	76,164	1 7 8	1 9 7
1885	5,500,000	5,042,041	34,375	27,500	14,436	76,311	1 7 9	1 10 [illegible]
1886	5,500,000	5,247,692	34,375	27,500	14,481	76,356	1 7 9	1 9 1
1888	3,500,000	3,626,341	21,875	17,500	9,380	48,755	1 7 10	1 6 11
1889	3,500,000	3,584,105	21,875	17,500	9,379	48,754	1 7 10	1 7 3
1891	4,500,000	4,276,030	28,125	22,500	11,784	62,409	1 7 9	1 [illegible] 2
1891	294,200	294,200	1,839	176	696	2,711	0 18 5	0 18 5
1893	200,000	191,350	1,250	Nil.	500	1,750	0 17 6	0 18 4
1893	2,500,000	2,514,861	15,625	12,500	6,853	34,978	1 8 0	1 7 10
1894	832,000	846,433	5,200	4,160	2,875	12,235	1 9 5	1 8 11
1895	4,000,000	3,876,605	25,000	20,000	10,721	55,721	1 7 10	1 8 3

REDEMPTIONS AND SINKING FUNDS.

Loans are either redeemed or renewed. In the former case, the amount of the obligations of the State to its public creditors is reduced; in the latter case the liability remains the same. Repayments, however, are chiefly effected under the head of renewals. The following statement gives the particulars to 30th June, 1897, of each loan for which redemption is provided by sinking fund or annual drawings. It will be seen that a very small part of the outstanding loans is subject to redemption in this manner :—

Loan.	Amount of Issue.	Annual Drawings.	Annual Sinking Fund.	Amount outstanding on 30 June, 1897.
	£	£	£	£
Railway Loan (31 Vic. No. 11).	1,000,000	20,000	....	206,300
Railway Loan (53 Vic. No. 24).	1,000,000	....	75,000	550,000
Treasury Bills in aid of Revenue—				
First Issue (1889–1890)	2,502,884	....	150,000	1,452,884
Second Issue (1896) ...	1,174,700			1,024,700
N.S.W. 1924 Stock	198,065	....	6,602	184,861
,, 1925 ,, ...	222,255	....	7,409	207,438
,, 1927 ,, ...	208,123	6,937	†............	....
Newcastle Water Supply...	16,000	....	*3,788	12,212

* Accumulated Sinking Fund. † Loan not yet issued ; consequently no liability exists.

To redeem the Railway Loan (31 Vic. No. 11), it is provided that during each year £70,000 shall be set apart for interest and reduction of loan. After the interest liabilities have been provided for, £20,000 of the balance is expended in extinction of the principal by annual drawings at par, and the sum remaining over is devoted to purchasing debentures in the open market. The principle of extinguishing the public debt by the operation of sinking funds has never found much favour with the Treasurers of the colony. There is, however, a disposition to apply the system to all cases where the work carried out by borrowed money is not of a permanent character, or is for the relief of the ordinary revenue. In the Loan Fund Act of 1894 provision was therefore made for an annual sinking fund to redeem a proportion of the loan proposed to be raised, and a similar provision was made in the Loan Acts of 1895, 1896, and 1897. In connection with the loan of £16,000 taken over by the Government in 1893 from the Municipal Council of Newcastle, a sum of £3,788 had accumulated for the purpose of redeeming the debentures, but no further contributions have been made to the Fund. It may be mentioned that the system of establish sinking funds is not favourably entertained in the other colonies, j ing from the way in which it has been practically abandoned.

QUOTATIONS FOR STOCK.

The standard of the colony's credit can be gauged either from prices obtained by original investors in loans, or from the prices qu on the market for New South Wales representative stock. The ordin stock transactions on the London Exchange are perhaps a better gu as unless the market quotations are disturbed by the issue of a loa New South Wales itself, or by any other colony of the Australa group, the standard of credit can be established daily, and conseque up to date.

The following table shows the monthly quotations during 1896-7 the London market for the £16,500,000 3½ per cent. inscribed s maturing October, 1924:—

Date.		Average of Buying and Selling Price.		Annual Rate per £100 sterling yielded to investors if stock is held till date of maturity.		
Month.	Day.	"Cum—Dividend."	"Ex—Dividend."	£	s.	d.
1896.						
July	4th	110½	109·60	3	1	9
August	1st	110½	109·33	3	2	0
September	5th	110½	108·99	3	2	3
October	3rd	108½	108·48	3	2	9
November	7th	107	106·64	3	4	4
December	5th	108	107·38	3	3	8
1897.						
January	2nd	108½	107·61	3	3	5
February	6th	111	109·77	3	1	6
March	6th	109	107·50	3	3	6
April	3rd	108½	108·48	3	2	7
May	1st	109	108·71	3	2	5
June	5th	109	108·38	3	2	8

It will be noticed that a steady decline in the colony's stocks t place during nearly the whole of the twelve months. On the 4th J 1896, stocks were quoted at a premium of £9 12s. against a premium £8 8s. in June, 1897.

Transactions in Government securities on the Sydney Stock Excha are almost entirely confined to the new funded stock, issued un Act 56 Vic. No. 1. Quotations for debentures and old funded st re rare. The prices of the new funded stock for each month of 1896–7 ill be found in the following table :—

Date.		Buying Price.		Annual rate per £100 sterling yielded to investors if stock is held till date of maturity.		
Month.	Day.	"Cum Dividend."	"Ex Dividend."			
1896.				£	s.	d.
July	16th	112	110·28	3	6	5
August	23rd	111½	111·36	3	5	0
September	17th	112½	112·08	3	4	0
October	15th	112½	111·78	3	4	4
November	18th	110½	109·40	3	7	5
December	14th	111½	110·12	3	6	5
1897.						
January	15th	110	108·28	3	8	10
February	25th	112½	112·50	3	3	1
March	15th	112½	112·14	3	3	6
April	22nd	112½	111·72	3	4	0
May	18th	113	111·94	3	3	8
June	16th	112½	111·12	3	4	8

The following table shows the amounts of stock registered in the lonies and in London. The amount available on the Sydney market only £3,156,215, and of this sum £402,460 represents debentures, nd £126,941 old funded stock, which, as already mentioned, are not uoted regularly :—

Class of Stock.	Amount Registered in—				Annual Interest payable in		
	New South Wales		Victoria.	London.	New South Wales.	Victoria.	London.
	Purchased from Trust Funds held by Treasury.	Taken up in Open Market.					
	£	£	£	£	£	£	£
benture Bonds	234,100	402,460	61,800	9,996,790	30,518	3,090	418,920
S.W. 4 per Cents. (Old Funded Stock)	403,249	126,941	....	......	21,208	....	....
S.W. Funded Stock (New)	1,557,260	2,376,494	....	......	143,506	....	...
cribed Stock	170,000	250,320	....	43,012,500	12,610	....	1,533,869
easury Bills—							
53 Vic. No. 9	1,452,884	......	....	......	47,471	....	....
55 Vic. No. 7	......	......	....	*5,000	......	....	....
59 Vic. No. 22	1,024,700	......	....	......	30,741	....	....
blic Debt on 30th June, 1897	4,842,193	3,156,215	61,800	53,014,290	286,054	3,090	1,952,789

* Overdue.

The owners of debentures are not known, as the bonds are transferable delivery ; the locality of holders, however, can be established by the gistration of the numbers of the interest coupons at the respective encies.

Character of Stock Issued.

As will be seen on page 894, loans have been raised by Treasury bills, debentures, and stock. The Treasury bills are of a temporary character, and will in the course of a few years disappear from the statement of the public debt, either by substitution of ordinary stock in lieu of them when the temporary purpose for which they were issued has been served, or by redemption on maturity. The practice of issuing Treasury bills, either in anticipation of, or to make good, deficiencies in revenue, is an old-established one; but, as will be seen later on, they have been made to serve another purpose, and money has been raised by their sale to meet certain obligations for public works. This is an innovation which could not be well avoided in the disturbed markets of the last few years. The Treasury bills are like the British Treasury bills in name only, but they have some points in common with the British Exchequer bills. The amount current on the 30th June, 1897, was £2,482,584, of which sum £2,477,584 represents bills in aid of revenue, and £5,000 those issued for loan services. From 1842 to 1883 the practice followed was to raise loans by debenture bonds. In the year last named, however, the Inscribed Stock Act was passed, in conformity with the provisions of the Imperial "Colonial Stock Act of 1877," and the system of raising loans by debentures was abolished. The amount of debentures outstanding on the 30th June, 1897, was £10,695,150, which is considerably less than one-fourth of the inscribed stock current.

The issue of funded stock, which may be more appropriately termed registered stock, is regulated by four Acts—one passed in 1873, one in 1892, one in 1894 and the other in 1895. Stock issued under the former Act is interminable, while that issued under the more recent Acts may be redeemed at the option of the Government, at the expiration of twenty years from the date on which the Act was passed, on the Treasurer giving twelve months' notice of his intention to redeem.

Under the Act of 1873 the Government was authorised to raise by a local loan a sum of £509,780, the stock to be known as the "New South Wales 4 per cents." The amount of stock sold in order to raise this sum was £530,189, which, together with £2,700 raised under another Act, represents the total amount of the interminable stock of the colony.

The Funded Stock Act of 1892 authorised the issue of stock to the amount of £3,000,000. The rate of interest was fixed at 4 per cent. at a minimum price of par, while the purchasers were afforded the privilege of purchasing amounts as low as £10, or any multiple of that figure. The amount sold to 30th June, 1897, was £2,549,350, leaving stock to the amount of £450,650 yet to be raised.

The Loan Acts 58 Vic. No. 14 and 59 Vic. No. 6, passed in 1894 and 1895 respectively, provided for the establishment of other local stocks. The stocks under the first-mentioned Act are known as New South Wales 1924 Stock, and Funded Stock, the latter running pari *passu* with the Stock floated under 56 Vic. No. 1, the amounts outstanding on 30th June, 1897, being £198,065 and £863,947 respectively; while the stocks under the later Act are known as New South Wales 1925 Stock, and Funded Stock, the latter also subject to the same conditions as that floated under 56 Vic. No 1. The amounts outstanding on the 30th June, 1897, were £222,255 and £520,458 respectively. The rate of interest chargeable on the three loans just specified is 3 per cent. per annum.

The Inscribed Stock Act was passed during 1883, and the first issue under the new conditions took place during the same year; but the Act coming into force shortly after the negotiation of the £2,000,000 debenture loan of 1882, the holders of the scrip had the option of exchanging the bonds for inscribed stock, a privilege which was availed of to the extent of £1,186,300. The total amount of inscribed stock issued to the 30th June, 1897, was £41,532,000, and the amount of the debenture bonds converted into the new scrip to that date was £1,480,500, making a total of £43,012,500 inscribed.

The Colonial Stock Act was passed by the Imperial Government in 1877, and provides for the inscription and transfer of stock raised in the United Kingdom, and for stamp duty to be levied thereon. It also defines the position of the British Government as regards Colonial indebtedness, and provides that every document connected with stock transactions shall have printed upon it a distinct intimation that no liability direct or indirect is incurred by the British Government in respect to such stock, unless the loan is under Imperial guarantee.

ISSUE OF TREASURY BILLS.

The Treasury bills current, as previously mentioned, include those raised to meet accumulated deficiencies in revenue, and those issued for loan services. The first portion of the former were issued during 1889 and 1890 under authority of an Act passed in the former year, the amount of the issue being £2,502,884. The Bills were not issued to the public, as the Treasury had large sums belonging to various trusts awaiting investment. The amount of this deficiency loan outstanding at the middle of 1897 was £1,552,884. The second issue of deficiency bills took place in 1895, the total amount being £1,174,700. The bills were taken up by the Treasury as in the former case, and the same arrangements for the extinction of the amount have been made. The other class of Treasury bills were issued for the purpose of raising funds which, under other circumstances, would have been obtained by ordinary loan. As late as 1890 New South Wales could borrow in London on very favourable terms; but a reaction was setting in, and in 1892, when it became necessary to borrow, the conditions were most unfavourable. The colony was entirely unprepared for the changed circumstances, as it was committed to engagements for the construction of public works, and contracts had been accepted on the assumption that funds would be available. To tide over the difficulty, the Government, during the years 1892-3, issued Treasury bills to the amount of £4,000,000, under the authority of the Act 55 Vic. No. 7, passed in December, 1891, and £3,250,000 were placed on the market, through the medium of the London and Westminster Bank, and the balance, £750,000, taken up by the Savings Bank of New South Wales.

The following table gives the particulars of the various issues of Treasury bills, all of which, with the exception of the amounts at 3 and 4¼ per cent., were negotiated in London:—

Date.		Class of Security.	Nominal Rate of Interest per cent.	Amount of Principal	Net proceeds after expenses and accrued interest have been met.	Rate per £100 sterling.	
When Floated.	When Payable.					Paid by Government, allowing for redemption at par on maturity.	Yielded to original investors if stock is held till date of maturity.
				£	£	£ s. d.	£ s. d.
1890	..	Treasury Bills (in aid of revenue)..	3	1,907,100	1,907,100	3 0 0	3 0 0
1891	..	do do ..	3	595,784	595,784	3 0 0	3 0 0
1895	..	do do ..	3	1,174,700	1,174,700	3 0 0	3 0 0
1892	1894	Treasury Bills (for loan services)..	4	1,250,000	1,239,998	4 9 2¼	4 6 0¾
1892	1896	do do ..	4	1,000,000	998,750	4 1 5¼	3 19 10¼
1892	1896	do do ..	4	263,500	262,510	4 2 9½	4 0 0
1892	1896	do do ..	4¼	750,000	750,000	4 5 0	4 5 0
1893	1896	do do ..	4	10,800	10,759	4 3 5¼	4 0 0
1893	1896	do do ..	4	725,700	721,059	4 5 3¼	4 0 0

The 1890 and 1891 issues were originally placed at 4 per cent., but as the money representing their purchase was entirely at the disposal of the Treasury, being trust funds, the interest on all but £388,500 was reduced to 3 per cent. from 1st January, 1895. The amount at 4¼ per cent. was a loan by the Savings Bank of New South Wales.

ISSUE OF LOANS.

Since 1891 three loans, forming part of the Funded Debt, have been placed in London, and in each case the greater part of the proceeds was required for redemption purposes. In October, 1893, a loan of £2,500,000, bearing interest at 4 per cent., at a minimum of 98½, was issued in London. The average price realised was £100 11s. 10½d. The total amount subscribed was £6,465,000, and the gross proceeds amounted to £2,514,861. The actual interest paid by the Government, after allowing for charges, and redemption at par on maturity, is £4 3s. 0¼d. per £100.

In September, 1894, a loan of £832,000 was floated for the purpose of renewing two small loans maturing on the 1st January, 1895. The minimum was fixed at par, and the loan was subscribed over five-fold. The actual rate per £100 sterling payable by the Government, after allowing for charges and redemption at par on maturity, is £3 10s. 11d. while the rate yielded to investors, also allowing for redemption at par, is £3 9s. 4½d.

The last loan raised in London was the £4,000,000 3 per cent. floated in October, 1895. The minimum price fixed was 94, and the average realised was £96 18s. 3½d. The actual rate paid by the Government per £100 is £3 4s. 3½d. while the yield to the investors is £3 3s. 2¼d.

The Funded Stock Acts were passed in 1892, 1894, and 1895 respectively. The first sales under the 1892 Act were effected on the 8th November, 1892, and from that date to the 31st December of the same year stock to the amount of £227,000 was disposed of. On the 30th June, 1897, the total amount sold under this Act was £2,549,350, while the amount sold under the 1894 Act to the same date was £863,947, and under the 1895 Act £520,458. The cost of the issues was practically nil, except the ¼ per cent. paid for brokerage, and even this was only payable in respect of a portion of the issue, the bulk of the stock being taken direct from the Treasury. During 1894, 1895, and 1896 small parcels were sold by the Government at a slight premium.

The following table shows the cost to the Government and the yield to investors per £100 sterling on each of the issues from 1881 to 1897 :—

Date.		Nominal Rate of Interest per cent.	Amount of Principal.	Net Proceeds after Expenses and Accrued Interest have been met.	Rate per £100 sterling.	
When Floated.	When Payable.				Paid by Government, allowing for redemption at par on maturity.	Yielded to original investors if stock is held till date of maturity.
			£	£	£ s. d.	£ s. d.
1881	1910	4	* 2,050,000	2,095,973	3 18 6¼	3 17 11½
1882	1933	4	* 2,000,000	2,012,154	4 0 2½	3 19 9½
1883	1933	4	† 3,000,000	2,935,909	4 2 8¼	4 1 9¼
1883	1933	4	† 3,000,000	2,958,831	4 2 0	4 1 1
1884	1924	3½	† 5,500,000	5,024,458	3 18 4½	3 17 0½
1885	1924	3½	† 5,000,000	4,921,878	4 0 3	3 18 11
1886	1924	3½	† 5,500,000	5,074,026	3 17 7½	3 16 3¾
1888	1918	3½	† 3,500,000	3,543,177	3 9 5¼	3 8 2
1889	1918	3½	† 3,500,000	3,498,020	3 10 8	3 9 4
1891	1918	3½	† 4,500,000	4,186,144	3 18 0	3 16 5½
1891	1918	3½	† 494,200	....	3 18 0	3 16 5½
1893	1933	4	† 2,500,000	2,440,549	4 3 0¼	4 1 8½
1894	1918	3½	† 832,000	829,551	3 10 11	3 9 4¼
1895	1935	3	† 4,000,000	3,804,573	3 4 3½	3 3 2¼
1895–6	1924	3	† 20,000	20,000	3 0 0	3 0 0
1895–6	1925	3	† 50,000	50,000	3 0 0	3 0 0
1896–7	1924	3	† 178,065	177,651	3 0 8	3 0 0
1896–7	1925	3	† 172,255	172,135	3 0 6	3 0 0
1892	1912	4	‡ 227,000	226,596	4 1 0¼	4 0 0
1893		4	‡ 1,829,400	1,827,850	4 0 11	4 0 0
1894		4	‡ 307,430	313,410	3 18 2	3 18 2
1895		4	‡ 130,750	133,293	3 18 0½	3 18 0½
1895–6		3	‡ 180,000	180,000	3 0 0	3 0 0
1896–7		4	‡ 54,770	56,143	3 17 1	3 17 1
1896–7		3	‡ 863,947	862,776	3 0 8	3 0 0
1896–7		3	‡ 340,458	340,458	3 0 0	3 0 0

* Debentures. † Inscribed stock. ‡ Funded stock.

When the necessities of the Treasurer compelled him to borrow in 1891 to obtain funds to complete urgent public works, he was forced to accept a net price of 93, or £8 lower than the loan of 1888. In 1893, however, as previously mentioned, a 4 per cent. loan was floated at an average of £100 11s. 10½d., the actual rate paid by the Government after allowing for redemption at par being £4 2s. 4d.; while in 1894, the average price realised for the £832,000 3½ per cent. conversion loan was £101 14s. 8d., and the rate paid by the Government £3 10s. 3½d., which was about that given for the 1889 loan. The 3 per cent. loan floated in 1895, however, was by far the most successful, and the rates paid by the Government and yielded to the investor are even lower than those of the 1888 loan, which was the most satisfactory till the 1895 loan was placed.

In the foregoing pages much has been said of the indebtedness of the colony. It would, therefore, be only fair to say something of the resources on which the colony may rely as security for the public creditors, but before examining the nature of these resources it may be well to recapitulate the liabilities outstanding. These are as follow:—

Public Debt, including Treasury Bills for loan services...	£58,596,914
Treasury Bills in aid of Revenue	2,477,584
Uninvested Trust Funds	3,830,549
Total..	£64,905,047

No allowance has been made in the foregoing figures for balances to credit of either loans or trust accounts, as money to the credit of the General Loan Account is allotted, and awaits expenditure on various services, whilst the Trust Funds are liabilities whether represented by securities or cash. The interest payable on the sum of £64,905,047 outstanding amounts to £2,337,343. The assets of the Government of the colony are the public works, elsewhere described in this volume, which yield an income of £1,739,000 after all charges of maintenance and working have been defrayed; and the public lands, of which 126,300,000 acres are leased for pastoral or mining purposes, and 20,200,000 acres sold on deferred payments, the balance due in respect of which amounts to £12,380,000, bearing interest at the rate of 4 and 5 per cent. From the public estate there is obtained an annual revenue of about £1,150,000, or allowing £150,000 for administration, a net revenue of £1,000,000, so that the colony has a revenue of £2,739,000, or £401,657 in excess of the whole charge for the public debt, without having to resort to taxation of any kind, and without parting with any more of the public lands. This fact alone ought to be evidence, if any such were wanted, of the ability of New South Wales to meet its engagements with the public creditors; but this is a point on which little need be said, for the security enjoyed by those who hold the debentures of the colony lies more in the wealth and integrity of the people than in the actual possessions of the Government.

PRIVATE FINANCE.

N previous editions of this work an estimate was given of the value of private property, distinguishing land from improvements, and iowing separately the value of each class of personal property. The itimate for March, 1893, showed a total of £405,187,000, or £336 per ead. Since the date named there has been a general decline in values, id as no great increase of population has taken place to counterbalance ie fall in the average value of property per head, the total for the hole colony is doubtless now below the figures for 1893. No detailed itimate, however, has been made, and the general summary of property ilues has, therefore, been omitted. A general valuation of the colony now in progress, and will be available at an early date; it may, thereire, suffice to say that the popular impression of the extent of the ecline in property value is not fully borne out by the returns so far ceived. The value of property, the subject of municipal assessment, ill be found in a subsequent chapter devoted to Local Government, id the condition of the public estate has already been given under ie head of Public Finance.

IMPORTATION OF CAPITAL.

Money has been freely poured into New South Wales, especially by ritish investors. During the twenty-six years from 1871 to 1896, the im of £100,031,000 was invested in the colony. Of this large sum, 49,020,000, or nearly half, represented the proceeds of loans obtained y the Government and Local Government bodies; £7,725,000, the mount of capital introduced by persons who came to the colony and iade it their home; and £43,286,000, the amount of other capital sent ir investment. Under the third category are included investments of ersons living abroad, the money introduced by banks and finance comanies, and the lendings of private persons. The total sum mentioned, iz., £100,031,000, did not, it should be understood, actually reach the ılony, since there were large counter payments to be made on account f the earnings of capital already in the colony, and the income drawn y absentees. The total of such payments was, during the twenty-six ears referred to, £95,563,000; so that the actual capital imported was 4,468,000.

The importation of capital by the Government has already been dealt ith at length in the portion of this volume dealing with loans, and etailed reference thereto is not needed here. The import of capital by ersons who have taken up their residence in the colony has averaged nearly £300,000 a year, and has been a material element in the progress of the colony, as it has not entailed the export of interest or the repayment of the principal. The capital invested by persons not living in the colony amounted to £43,286,000, including money by the leading banks, and representing their capital, with the deposits received in Great Britain and employed in the colony; capital employed by other investment companies; mining capital; and miscellaneous investments, including advances on mortgages and investments in real estate in the city of Sydney.

The following are the particulars of the investments referred to above, grouped in periods of five years, except the last period, which embraces six years :—

Classification.	1871-75.	1876-80.	1881-85.	1886-90.	1891-96.	1871-96.
	£	£	£	£	£	£
Capital imported by the Government..........	2,861,000	5,458,000	16,066,000	11,571,000	13,064,000	49,020,000
Capital introduced by persons taking up their residence in the Colony	751,000	1,983,000	2,719,000	1,387,000	885,000	7,725,000
Capital invested in the Colony by persons living abroad	2,038,000	8,597,000	13,791,000	15,187,000	3,673,000	43,286,000
Total capital introduced	5,650,000	16,038,000	32,576,000	28,145,000	17,622,000	100,031,000

The figures just given do not cover the entire case. British money was employed in the colony prior to 1871, but not to any large extent, although no inconsiderable sum was invested in pastoral properties, especially in the Riverina district, by persons residing in other colonies, chiefly in Victoria. The income derived from the investments last mentioned, and the income of absentees generally, reach some £1,200,000, which, capitalised at 5 per cent., amounts to £24,000,000. The import of money due to the increase in the public debt from 1871 to the end of 1896, has been estimated at £49,020,000, but the actual State and municipal debt owed outside the colony was £54,384,000, so that practically the debt of New South Wales to persons outside its boundaries in excess of the value of property outside the colony owned by New South Wales residents is as follows :—

	Amount.	Income.
To public creditors..........	£53,014,000	£1,950,000
,, municipal creditors..........................	1,370,000	59,000
,, private creditors and absentees...........	67,286,000	2,798,000
Total..........	£121,670,000	£4,807,000

The sum required to meet the interest on investments in New South Wales, viz., £4,807,000, is undoubtedly very large, representing as it does £3 14s. 10d. per head of population. A considerable portion of this is really not a burthen on the community, being the result of antecedent production. Thus the mining industry alone pays £900,000 as profits and expenses on New South Wales mines owned out of the colony; but as the income would cease if the mines failed to be productive, this payment stands in a different category to the interest on the public debt, for example. Other payments, standing on much the same footing as the earnings of mines, amount to about £1,150,000, leaving the payments to be made to the creditors of the colony, irrespective of production, approximately £2,757,000.

INCOME.

Any estimate of the incomes of persons living or holding property in New South Wales was, prior to the Census of 1891, more a matter of speculation than of exact calculation. The information obtained, however, under the provisions of the Census and Industrial Returns Act of the year mentioned provided material by means of which a fair approximation could be made both as to the amount and the sources of incomes, and this material, with the necessary corrections to bring it up to the year 1894, has been made use of in the following computations. The classification of incomes that has been adopted is somewhat lacking in scientific precision, but no better presentation of the figures is possible. Thus, the item of transport appears as £3,184,000, but the greater part of this sum might be assigned to the pastoral, agricultural, and other great industries as being directly due to them, and it may here be pointed out that the profits derived by the Railway Commissioners from working the railways and tramways are not included, as the figures refer to private incomes only. The earnings of the commercial class are set down at £7,468,000; but in this sum are not included profits of banks and other lending institutions, as their incomes are already included with the industries from which they are primarily derived. Thus, the manufacturing industry is credited with an income of £7,940,000, of which £5,390,000 represents wages, the remainder—£2,550,000—being the earnings of fixed capital, rents or rental value of premises, and interest paid on borrowed money. Similarly, the income derived from the pastoral industry is set down as £9,292,000; but a very large portion of this amount consists of the earnings of financial institutions, though, as might naturally be supposed, the exact amount so earned, and the amount to be set down as belonging to the nominal owners, cannot be determined with any pretension to accuracy.

The total income derived from New South Wales, or enjoyed by persons residing in the colony, for the year 1894, was £59,080,000, of which a distribution is given below. Since that time the conditions have not materially changed :—

Incomes derived from—	£
Professional and municipal	3,129,000
Domestic service, supply of food or lodging	3,574,000
Commerce	7,468,000
Transport by land or sea, including private railways	3,184,000
Manufacturing or preparing materials	7,940,000
Construction, works and buildings	5,834,000
Agriculture and dairying	5,118,000
Pastoral industry	9,292,000
Forestry and fisheries	410,000
Mining	4,264,000
Public Service, excluding railways	2,978,000
Rental value of land and buildings used as dwellings	5,661,000
Other incomes	228,000
Total	£59,080,000

As is well known, the Public Service includes several branches of employment not usually associated with governmental administration in other lands ; the figures inserted in the table include the earnings of all branches of State employ except the railways, the incomes derived from which have been placed under the head of transport. The earnings of persons engaged in commerce do not include those derived by capitalists from their investments, unless their capital was employed in trading. The rental value of land and buildings used as dwellings includes not only properties which produce rent, but also the annual value of premises occupied by their owners.

Another grouping of incomes may be made into employers, employed, and persons working on their own account. To these classes has been added a fourth—professional persons, with whom the servants of the State have been included for convenience rather than for accurate classification, seeing that the Civil Servants are in reality wage-earners. There are, however, various reasons which render it desirable that the class denominated wage-earners should be restricted so as to include only those who are popularly so called. Adopting these groups, the numbers and earnings are as follow :—

Class.	Income.
	£
Wage-earners	23,636,000
Persons working on their own account, exclusive of professional persons	6,959,000
Professional persons and Civil Servants	5,633,000
Employers, with earnings of capital owned in New South Wales	14,181,000
Rental value of buildings used as dwellings	5,661,000
Absentee incomes	3,010,000
Total £	59,080,000

The earnings of employers and of capital employed in New South Wales are placed at £14,181,000; this sum, however, represents not merely the income of the employing class, but also of companies carrying on co-operative enterprises, depositors in financial institutions, and the income derived from invested capital, no matter how small may be the amount. It unfortunately happens that there are no data on which could be founded an estimate of the amount of income derived by persons superintending the employment of their own capital, as distinguished from capital indirectly employed.

With wage-earners are included persons assisting relatives. Such persons are usually remunerated indirectly, with, in some instances, the addition of a small money wage. The total income of wage-earners is £23,636,000, distributed amongst 284,000 males, receiving £21,560,000, and 60,600 females with £2,076,000. These figures give an average of a little more than £76 per male, and £34 per female, wage-earner during twelve months.

The earnings of females amounted to at least £4,976,000; but their income was possibly considerably more, seeing that the income of female capitalists and land-owners is in addition to the sum set down as earnings. The wage-earning females had an income, as already stated, of £2,076,000, but to this sum should be added the approximate value of board which servants receive. Women working on their own account, who numbered 13,000, had an income of £920,150, while those engaged in learned professions, or employed by the State, numbered 11,200, with an income of £650,000.

The income of £59,080,000 disclosed in the foregoing tables cannot be looked upon as entirely within the disposition of the persons to whom it accrues. The actual cost of living during the year 1894 may be set down as £46,655,900; in addition to this expenditure, £506,000 was paid away in local rates; calls by banks absorbed £750,000; payments to the State out of income by holders of land conditionally purchased amounted to £1,052,000, and life insurance premiums, £910,000 There were, of course, losses by fire, accident and the like which further reduced the spendable income; while £3,010,000, the income of absentees, was expended abroad. When every allowance has been made, it will be found that in spite of the serious checks to business experienced during the year, the savings of the community reached the very respectable sum of £3,300,000.

PROBATES.

The value of the estates in which wills were proved in the colony, or for which letters of administration were granted, has increased very rapidly. On page 801 are given the values of probates, including letters of administration, from 1887 to 1896, and on page 911 the value of estates on which stamp duties were paid from 1890 onward. The value stated for probate purposes is usually greater than that on which stamp duty is paid, chiefly because the one includes debts and encumbrances, while the other is exclusive of them. The probate returns also include occasional duplications, but the number and value of such estates are not large, while the amount of debts included reaches a high figure, seeing that the difference between the nominal value of the estates for which probate or letters of administration were granted and the actual amount on which duty was paid during the last five years amounted to fully 20 per cent. The table must also be taken with the qualification that during 1875 stamp duties were abolished, and were not reimposed until 1881. For all years embraced within this period the returns are incomplete as regards the amount sworn to. Though the value of estates cannot be taken as the basis of an estimate of the absolute wealth of New South Wales, the number of estates and their value give some indication of the distribution of that wealth. The following table gives the number of wills proved and letters of administration granted from 1865 to 1896. It also gives the number of estates compared with every hundred deaths of the whole population, of adult males and females, and of adult males. It is necessary to point out that in consequence of the change in the financial year, the figures for 1895–96 have, in some cases, had to be estimated, pending the completion of certain returns which are being prepared :—

Period.	Proportion of estates per 100 deaths of adult males.	Proportion of estates per 100 deaths of adults (males and females).	Proportion of estates per 100 deaths of total population.	Number of estates
1865–69	18·9	12·7	5·7	2,079
1870–74	22·7	15·0	7·5	2,747
1875–79	30·9	20·2	9·4	4,973
1880–84	34·8	22·4	11·0	6,825
1885–89	36·9	23·8	11·5	8,309
1890–94	40·2	25·1	12·8	9,784
1895–96	44·3	27·5	15·1	4,642

The figures just given clearly point to the fact that year by year property is becoming more widely distributed, and this conclusion is borne out by figures which appear in other parts of this volume. In the period covered by the table, which may be taken as approximately thirty years, the proportion of persons holding property has nearly trebled; for whereas in 1865–69 not quite six persons out of a hundred held property, the proportionate number in 1895-96 was fifteen, and this increase in distribution was accompanied by a doubling in the value of the individual estates—a remarkable condition of progress, the equal of which it would be vain to look for in other countries.

In the edition of this work for 1892 it was assumed that few women held property worth taking into consideration in estimates founded on the probate returns. Researches since made show this assumption to be quite erroneous, and so far from property being almost exclusively confined to men, women have estates amounting in the aggregate to no inconsiderable value. From the available returns it appears that out of every hundred estates paying stamp duty twenty-one are left by women, or, in other words, the number of women's estates paying duty is nearly 27 per cent. of the number of estates belonging to men—a proportion altogether too large to be neglected.

In the chapter of this volume dealing with employment, it is pointed out that at the time of the Census there was an unemployed population of adult breadwinners equal to 4·8 per cent. of their whole number, and it is notorious that the number has increased since the date mentioned. It is obvious that an increasing ratio of wealth accumulation and an increasing distribution are consistent with a dearth of employment amongst a certain class of the community. It is a sound sentiment that a condition of regular employment of the whole population willing to work is more conducive to real prosperity than a condition which, while affording increased opportunities of saving to a large proportion of the community, leaves a not inconsiderable section uncertain as to their means of support during a large part of the year. The condition of affairs to which allusion has been made is one of the inconsistencies of modern progress by no means peculiar to Australia, and to remedy it is perhaps the chief aim of modern social legislation.

In the absence of the exact figures which it may be possible in the future to obtain under the present system of direct taxation, the actual distribution of wealth in New South Wales is a matter on which opinions may differ; but the collections under the Stamp Duties Act afford data which indicate the distribution with more or less accuracy. The following are the returns for seven years and a half:—

Year.	Under the value of £5,000.		£5,000 and under the value of £12,500.		£12,500 and under the value of £25,000.		£25,000 and under the value of £50,000.		£50,000 and over.		Total.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
		£		£		£		£		£		£
1890	1,644	1,281,596	61	472,820	35	654,055	11	412,350	17	3,669,605	1,768	6,490,426
1891	1,836	1,254,339	74	604,390	28	512,425	16	506,580	6	717,770	1,960	3,595,504
1892	1,990	1,390,502	76	596,480	20	381,860	19	720,320	14	1,488,145	2,119	4,577,307
1893	1,795	1,235,445	68	533,455	24	381,960	11	394,145	8	1,284,735	1,906	3,829,740
1894	1,912	1,361,750	68	540,490	29	494,815	15	563,890	7	1,171,005	2,031	4,131,950
*1895	903	556,375	31	235,075	13	246,855	8	277,875	6	564,955	961	1,881,135
1895–6	2,076	1,311,800	54	434,090	22	376,065	12	429,175	16	1,726,939	2,180	4,278,069
1896–7	1,959	1,180,785	57	463,028	24	439,245	17	588,925	15	1,724,425	2,072	4,396,408
Total	14,115	9,572,592	489	3,879,828	195	3,487,280	109	3,893,260	89	12,347,579	14,997	33,180,539

* Half-year ended 30th June.

Owing to the large number of women holding property, no comparison can be considered on correct lines which neglects their numbers. If, therefore, it be assumed that the adult population at the middle of 1897 numbered 656,640, and of these 27·5 per cent.—that is to say, about 180,575 persons—were the possessors of property, and assuming further that the sum of £405,187,000, which was the valuation of the wealth of the colony in 1893, was distributed amongst the 180,575 persons in the same proportions as the £33,180,539 ascertained in the table just given was distributed amongst the 14,987 persons in whose estates stamp duties were paid, then the following would be the present distribution of property in New South Wales :—

Class of Estates.	Persons with estates.	Total value of estates of each class.	Proportion of total property in each class.
	No.	£	per cent.
Under £5,000	169,955	116,897,000	28·9
£5,000 and under £12,500	5,888	47,379,000	11·7
£12,500 and under £25,000	2,348	42,585,000	10·5
£25,000 and under £50,000	1,312	47,543,000	11·7
Over £50,000	1,072	150,783,000	37·2
Total	180,575	405,187,000	100·0

These figures show that nearly one half of the property of the colony is in the hands of 2,384, nearly three-fifths in the hands of 4,732, and almost three-fourths in the hands of 10,620 persons.

According to the proportions already ascertained, the possessors of property would comprise 142,185 males and 38,390 females; and those who have no property, or so little as not to be worth while making it the subject of formal bequest, 476,065 adults, viz., 233,535 males and 242,530 females. These figures are given with no little diffidence because all deductions based on the probate returns, and not taking into consideration the ages of the persons leaving property, are open to error. Further researches now in progress may or may not support the figures, but it can be said that, so far as investigations have proceeded, nothing has been disclosed that would tend to discredit their substantial accuracy.

In the Statistical Abstract of the United Kingdom the number of estates on which probate duty was paid for the six years 1888–89

·94 is stated at 302,055. Making the liberal allowance of one-
ı for successions, of which the number is not given, the percentage
·sons owning property would be about 8·8, as against 15·1 in New
Wales.

CURRENCY.

coins circulating in Australasia are those of the United Kingdom,
is the standard; the silver and copper current are more properly
s than coins. Gold coins are legal tender to any amount; silver for
nount not exceeding forty shillings; and bronze for one shilling.
andard weight and fineness of each coin are given below. The
current weight of a sovereign is 122·5 Imperial grains, and of a
vereign 61·125 grains :—

Denomination of Coin.		Standard Weight.	Standard Fineness.
		Imperial grains.	
......	Sovereign	123·27447	Eleven-twelfths fine gold, or decimal fineness 0·91666, one-twelfth copper alloy.
	Half-sovereign	61·63723	
......	Crown	436·36363	Thirty-seven-fortieths fine silver, or decimal fineness 0·925, and three-fortieths copper alloy.
	Double Florin	349·09090	
	Half-crown	218·18181	
	Florin	174·54545	
	Shilling	87·27272	
	Sixpence	43·63636	
	Threepence	21·81818	
......	Penny	145·83333	Mixed metal, 95 parts copper, 4 parts tin, and 1 part zinc. (The Coinage Act does not prescribe these proportions for bronze coins, but the alloy used is as stated.)
	Halfpenny	87·50000	
	Farthing	43·75000	

d coins only are struck at the Sydney Mint, though silver and
of English coinage are issued. The Governments of New
Wales and Victoria are endeavouring to induce the Imperial
rities to grant them permission to coin silver for circulation in the
alian colonies.

ndard or sovereign gold has a fineness of 22 carat, and is worth
s. 10½d. per ounce; pure gold, or 24 carat, is worth £4 4s 11$\frac{4}{11}$d.
ınce. The whole of the gold contained in deposits sent to the
y Branch of the Royal Mint for melting, assaying, and coining
ounted for at the rate of £3 17s. 10½d. per ounce standard or
ign gold.

Standard silver is 0·925 fine. Owing partly to its greatly increa production, and still more to its demonetisation in a large part Europe, and the restrictions placed upon its free coinage in countr which still have a double standard of coinage, its value has decrea by over 49 per cent. during the last twenty-five years. The aver price of standard silver in the London market for each year since 18 is given in the annual reports of the Deputy Master of the Royal Mi as follows :—

Year.	Price per standard ounce.	Year.	Price per standard oun
	d.		d.
1871	$60\frac{9}{16}$	1880	$52\frac{1}{4}$
1872	$60\frac{1}{4}$	1881	$51\frac{3}{4}$
1873	$59\frac{1}{4}$	1882	$51\frac{13}{16}$
1874	$58\frac{5}{16}$	1883	$50\frac{9}{16}$
1875	$56\frac{13}{16}$	1884	$50\frac{11}{16}$
1876	53	1885	$48\frac{5}{8}$
1877	$54\frac{3}{4}$	1886	$45\frac{3}{8}$
1878	$52\frac{9}{16}$	1887	$44\frac{5}{8}$
1879	$51\frac{3}{16}$	1888	$42\frac{7}{8}$

Year.	Price per standard oun
	d.
1889	$42\frac{11}{16}$
1890	$47\frac{3}{4}$
1891	$45\frac{1}{16}$
1892	$39\frac{13}{16}$
1893	$35\frac{5}{8}$
1894	29
1895	$29\frac{7}{8}$
1896	$30\frac{3}{4}$

The fluctuations in its value during 1896 are shown in the followin table of average monthly prices :—

Month.	Price per standard ounce.	Month.	Price per standard ounce.	Month.	Price per standar ounce.
	d.		d.		d.
January.........	$30\frac{5}{8}$	May	$31\frac{1}{16}$	September ...	$30\frac{3}{8}$
February	31	June	$31\frac{3}{8}$	October.........	$30\frac{1}{16}$
March	$31\frac{5}{16}$	July	$31\frac{7}{16}$	November	$29\frac{11}{16}$
April	$31\frac{1}{16}$	August	$30\frac{15}{16}$	December	$29\frac{13}{16}$

The nominal value of one pound (avoirdupois) of bronze coined int pence is 4s., and into halfpence or farthings, 3s. 4d.

The weight of gold sent for coinage from the first opening of the Mint on the 14th May, 1855, to the end of 1896, was 22,676,761 oz., value at £84,583,038. Of this quantity New South Wales produced onl

02,814 oz., of the value of £32,194,526, the amount from each colony ng :—

Colony where gold was produced.	Weight.	Value.
	oz.	£
Queensland	9,787,908	34,890,200
New South Wales	8,502,814	32,194,526
New Zealand	2,557,626	10,118,128
Victoria	1,442,690	5,923,511
South Australia	80,222	284,592
Tasmania	12,293	46,374
Other countries	32,750	115,477
Old coin	260,458	1,010,230
Total	22,676,761	84,583,038

The greater part of the gold won in New South Wales and Queens- d, and also part of the produce of New Zealand and South Australia, ne to Sydney for coinage; but by far the larger portion of the gold the colonies last mentioned, as well as of the other colonies of the up, goes to Melbourne. The total value of gold raised in Australasia the end of 1896 amounted to £388,533,999, of which £84,583,038, ivalent to 21·8 per cent., passed through the Mint of this colony. e value of gold coin and bullion issued up to the end of 1896 was 4,423,796, of which £81,374,000 worth of gold was converted into n, the value of sovereigns and half-sovereigns being :—

Year.	Sovereigns.	Half-sovereigns.	Total.
	£	£	£
1855 to 1886	51,846,500	2,321,500	54,168,000
1887	2,002,000	67,000	2,069,000
1888	2,187,000	....	2,187,000
1889	3,262,000	32,000	3,294,000
1890	2,808,000	....	2,808,000
1891	2,596,000	77,000	2,673,000
1892	2,837,000	....	2,837,000
1893	2,844,000	125,000	2,969,000
1894	3,067,000	....	3,067,000
1895	2,758,000	....	2,758,000
1896	2,544,000	....	2,544,000
Total	78,751,500	2,622,500	81,374,000

Bronze coin was first issued from the Mint in 1868, and silver coin in 1879, the respective value of each to the close of the year 1896 being:—Bronze, £43,550; and silver, £459,350. The amount of each particular currency issued to the end of 1896 is shown in the following table:—

Year.	Silver Coin.							Bronze Coin.
	Crowns and Double Florins.	Half-crowns.	Florins.	Shillings.	Six-pences.	Three-pences.	Total.	
	£	£	£	£	£	£	£	£
1868 to 1886	......	94,900	72,800	91,950	24,500	37,250	321,400	28,570
1887	585	2,140	350	1,850	500	690	6,115	800
1888	215	1,260	850	3,250	3,100	2,610	11,285	1,630
1889	200	7,700	3,900	3,900	2,700	3,975	22,375	1,560
1890	200	7,400	8,500	9,200	4,500	5,375	35,175	1,460
1891	......	2,000	1,800	4,100	5,100	4,200	17,200	1,980
1892	......	1,500	4,000	4,300	2,500	1,625	13,925	2,065
1893	......	2,800	2,300	3,500	1,000	425	10,025	840
1894	......	1,900	1,100	900	1,500	900	6,300	505
1895	100	900	700	250	300	2,500	4,750	1,260
1896	......	2,100	2,300	4,200	1,300	900	10,800	2,880
Total... £	1,300	124,600	98,600	127,400	47,000	60,450	459,350	43,550

The difference between the nominal value of silver and the average price per standard ounce paid by the London Mint represents the seignorage or gross profit. The coinage or nominal value of silver per standard ounce is 5s. 6d., and the price per ounce paid by the London Mint during 1896 averaged 2s. $6\frac{5}{16}$d., the difference—2s. $11\frac{11}{16}$d.—representing the seignorage accrued. Against this must be placed the loss to the Imperial Government by purchase of worn silver at its nominal value; but after making all necessary allowances for loss by abrasion, minting, etc., a considerable margin of profit remains. As, however, silver coins are merely tokens, the demand for them is necessarily limited, the average annual issue of silver coin by the Sydney Mint for twenty-eight years being about £16,000. The average price of silver from 1871 to 1896 was about 48d. per ounce. If all the silver issued by the Sydney Mint since 1871 had been coined there, the gross profits for the whole period would not have amounted to more than about £100,000, and from this would have had to be deducted the loss on old coin withdrawn and the cost of minting.

The gold bullion issued by the Mint is partly pure gold in small quantities for the use of jewellers, chemists, and others; but the bulk consists of 10-oz. ingots of sovereign gold, which has, of late years, been principally exported to India by the Sydney branch of the "Comptoir d'Escompte de Paris." The total amount of gold bullion issued during 1896 was valued at £67,649, and to the end of 1896 at £3,049,796.

Worn gold coins have been received at the Mint for recoinage since 1876, and silver coins since 1873. Light gold coins are received in parcels of not less than £50 nominal value, and recoined free of charge, but depositors must bear the loss by abrasion. The nominal value of gold coin withdrawn from circulation during 1896 was only £183, the net loss by recoinage being £3, or 1·890 per cent. For the whole period from 1876 to 1896 the corresponding figures were £824,495, £2,707, and 0·328 per cent.

Silver coin of the value of £5,331, and weighing 19,384·33 oz., was withdrawn during 1896. On this the net loss, after melting, was found to be 2,176·78 oz., or 11·23 per cent. The value of silver coin withdrawn from 1873 to 1896 was £143,917; its weight, 523,332·37 oz.; and the net loss, 65,576·22 oz., or 12·53 per cent. All silver coin withdrawn is forwarded to London for recoinage.

The expense of the Sydney branch of the Royal Mint is borne by the local Government, £15,000 being set apart annually for that purpose. Special votes for construction, repairs, and furniture have, however, been passed occasionally, as will be seen from the subjoined table, which shows the total cost of administration, as well as the net cost to the colony for the last ten years:—

Year. ended 31st December.	Actual Expenditure from Consolidated Revenue.			Mint Receipts (paid into Consolidated Revenue).	Net Annual Charge to Colony for working of Mint.
	On Ordinary Administration (including Pensions, Stores, and Stationery).	On Construction, Repairs, and Furniture.	Total.		
	£	£	£	£	£
1887	13,487	17	13,504	10,328	3,176
1888	13,495	1	13,496	10,906	2,590
1889	13,622	1,922	15,544	12,084	3,460
1890	14,955	120	15,075	13,208	1,867
1891	14,357	417	14,774	13,929	845
1892	13,344	283	13,627	11,652	1,975
1893	14,293	555	14,848	13,198	1,650
1894	14,028	5,823	19,851	16,705	3,146
1895	13,937	348	14,285	14,510	*225
1896	14,277	493	14,770	14,847	*77

* Excess receipts.

The receipts of the Mint, which are paid into the Consolidated Revenue, are made up of charges for coining gold, fees for assays, etc., and profits on sale of silver. The Mint retains all silver contained in deposits, and makes payment for the amount in excess of 2 per cent.

at a rate which is from time to time notified in the *Gazette*, and which, from 1st January to 30th September, 1896, was 1s. 9d., and from 1st October to 23rd August, 1897, 2s. per oz. fine, and from the last-mentioned date, 1s. 6d. per oz. fine. The following table shows the scale of charges:—

Quantity.	Gold raised in New South Wales.	Gold certified to be the produce of any colony or country other than N. S. Wales.
In deposits of less than 500 ounces, standard.	6d. per ounce, six shillings being charged for a deposit under 12 ounces.	5d. per ounce, five shillings being charged for a deposit under 12 ounces.
In deposits of 500 ounces and over, but less than 5,000 ounces, standard.	4d. per ounce	3d. per ounce.
In deposits of 5,000 ounces, standard, and over.	2d. per ounce	1d. per ounce.

The total receipts of the Mint since its establishment in 1855 are shown below:—

Year.	Mint Charges.		Profit on Sale of Silver.	Fees for Assays and Crushings, and Proceeds of Sweep.	Total Mint Receipts (paid into Consolidated Revenue).
	On New South Wales Gold.	On Gold of other Colonies or Countries.			
	£	£	£	£	£
1855 to 1886	261,033	127,323	44,602	53,897	486,855
1887	2,119	4,003	2,796	1,410	10,328
1888	1,649	3,483	3,678	2,096	10,906
1889	2,299	4,613	3,434	1,738	12,084
1890	2,432	4,152	4,772	1,852	13,208
1891	2,881	3,854	5,319	1,875	13,929
1892	2,938	3,893	3,164	1,657	11,652
1893	3,624	3,713	4,290	1,571	13,198
1894	4,439	3,759	5,402	3,105	16,705
1895	3,832	3,125	5,058	2,495	14,510
1896	3,487	2,956	5,058	3,346	14,847
Total	290,733	164,874	87,573	75,042	618,222

In former issues of this work tables were given purporting to show the amount of coin in private hands. These tables were given on the authority of the Mint, and were deduced from the statistics of gold and silver imported and exported. For 1896 the amounts would be :—

Coinage.	Total.	Per Inhabitant.		
	£	£	s.	d.
Gold	4,536,882	3	9	11
Silver	398,205	0	6	2
Bronze	34,633	0	0	6
Total	4,969,720	3	16	7

It has been contended that passengers by outward steamers usually take with them a supply of gold which greatly exceeds the amount brought to the colony by passengers inward. This may be conceded, inasmuch as passengers commencing the voyage would naturally be possessed of a larger stock of money than those whose voyage is practically over. Early in 1892 the general manager of one of the principal banks in Sydney obtained returns from the three banking institutions with the largest receiving business, and it was found that the coin paid in was equal to precisely half the value of the notes deposited at the same time. From this it has been claimed that the coin in private hands is not more than half the note issue outstanding, which at the time the estimate was made was not more than £1,450,000. On this assumption the coin in private hands would have been £725,000, as compared with £4,416,000 estimated by the Mint as being the probable quantity at the same period. While not maintaining the absolute accuracy of the latter estimate, it may be pointed out that there are many sound reasons why the estimate of £725,000 should not be entertained. Bank notes are continued in circulation by several of the banks until they are practically worn out, and a large number of persons not over fastidious have strong objections to carrying notes about their persons when gold can be procured. The assumption that coin is withdrawn in large quantities by outward-bound passengers may be correct so far as gold is concerned, but not so as regards silver. It is, therefore, probable that the silver remains in the country, and the estimate of the Mint in regard to that metal may be accepted with some deduction for coin lost or destroyed. Another source of the accumulation of coin in private hands is hoarding, which recent events prove to be quite a common practice in the colony, and the indestructible and unimpeachable sovereign is naturally preferred to the perishable bank note. Lastly, a large proportion of the half-sovereigns issued remains in circulation with silver as till-money, and not being paid into the banks would not be subject to the conditions of the estimate of the banking authority already alluded to.

An estimate, founded partly on the records and partly on observation, has been made by the author, which shows that the estimate of the Mint must be abandoned as being too high, and the amount of coin in private hands may be approximately stated as follows :—

	£
Gold	1,856,000
Silver	363,000
Bronze	31,000
Total	£2,250,000

This is equal to £1 14s. 8d. per inhabitant at the close of 1896. To the sum shown must be added £1,237,971 note circulation, so that the total active currency would appear to be about £3,488,000, or £2 13s. 9d. per inhabitant. As, however, the note issue is fully covered by gold in the Australasian colonies, it is omitted from the following tables, in which, on the other hand, the coin held by banks is included for the sake of comparison. Including bank reserves, the gold and silver held in New South Wales amounted to no less than £6 18s. 5d. per inhabitant—a sum only slightly below that shown for France, and considerably in excess of that shown for any other European country. The figures given in the tables are published on the authority of the Director of the United States Mint, Washington, with the exception of those for Australasia, which are based on a special estimate. The total stocks of money held in various countries in 1896 were as follow :—

Country.	Gold.	Silver.			Uncovered Paper.
		Full Tender.	Limited Tender.	Total.	
	£	£	£	£	£
United Kingdom	120,012,000	....	25,009,000	25,009,000	[illegible]
Austria-Hungary	34,360,000	5,138,000	8,220,000	13,358,000	[illegible]
Belgium	10,275,000	10,275,000	1,439,000	11,714,000	[illegible]
Bulgaria	164,000	699,000	699,000	1,398,000	....
Denmark	3,301,000	....	1,110,000	1,110,000	[illegible]
France	158,646,000	89,249,000	11,898,000	101,147,000	[illegible]
Germany	138,713,000	18,906,000	23,633,000	42,539,000	[illegible]
Greece	103,000	103,000	206,000	309,000	[illegible]
Italy	20,632,000	2,569,000	5,446,000	8,015,000	[illegible]
Netherlands	5,507,000	10,871,000	678,000	11,549,000	[illegible]
Norway	1,541,000	....	411,000	411,000	[illegible]
Portugal	1,048,000	....	1,521,000	1,521,000	[illegible]
Roumania	7,932,000	....	2,178,000	2,178,000	[illegible]
Russia	100,407,000	719,000	8,220,000	8,939,000	[illegible]
Servia	308,000	....	349,000	349,000	[illegible]
Spain	7,932,000	....	10,131,000	10,131,000	[illegible]
Sweden	1,747,000	....	1,007,000	1,007,000	....
Switzerland	3,288,000	....	432,000	432,000	[illegible]
Turkey	10,275,000	6,165,000	2,055,000	8,220,000	....
China	....	154,125,000	....	154,125,000	....
India	....	195,225,000	....	195,225,000	[illegible]
Japan	16,337,000	14,221,000	3,802,000	18,023,000	....
Siam	123,000	39,723,000	....	39,723,000	....
Straits Settlements	....	49,320,000	411,000	49,731,000	....
Egypt	26,571,000	....	1,069,000	1,069,000	....
Canada	3,288,000	1,028,000	206,000	1,234,000	[illegible]
Central American States	103,000	2,466,000	....	2,466,000	[illegible]
Cuba	3,083,000	308,000	....	308,000	....
Hayti	822,000	617,000	308,000	925,000	[illegible]
Mexico	1,028,000	19,934,000	....	19,934,000	[illegible]
South American States	8,220,000	7,193,000	....	7,193,000	[illegible]
United States	138,137,000	114,176,000	15,577,000	129,753,000	[illegible]
Hawaii	822,000	206,000	....	206,000	....
Australasia	31,953,000	....	1,209,000	1,209,000	....

unts per inhabitant for the same countries are shown below:—

Country.	Gold.			Silver.			Uncovered Paper.			Total.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
gdom	3	1	1	0	12	9	0	11	8	4	5	6
gary	0	15	5	0	6	0	0	18	11	2	0	4
	1	12	7	1	17	2	2	7	0	5	16	9
	0	1	0	0	8	6	....			0	9	6
	1	9	6	0	9	8	0	8	3	2	7	5
	4	2	8	2	12	8	0	10	6	7	5	10
	2	13	1	0	16	3	0	9	11	3	19	3
	0	0	11	0	2	10	1	6	6	1	10	3
	0	13	4	0	5	2	1	2	5	2	0	11
	1	2	11	2	5	4	1	7	10	4	16	1
	0	15	5	0	4	1	0	7	10	1	7	4
	0	4	1	0	6	0	2	8	1	2	18	2
	1	9	5	0	8	1	0	9	0	2	6	6
	0	15	11	0	1	5	0	15	3	1	12	7
	0	2	8	0	3	0	0	5	4	0	11	0
	0	8	10	0	11	3	1	3	6	2	3	7
	0	7	3	0	4	2	....			0	11	5
	1	1	11	0	2	11	0	19	7	2	4	5
	0	9	6	0	7	6	....			0	17	0
	....			0	14	0	....			0	14	0
	....			0	13	2	0	0	6	0	13	8
	0	7	5	0	8	2	....			0	15	7
	0	0	6	7	18	11	....			7	19	5
ements	....			13	1	9	....			13	1	9
	3	15	11	0	3	1	....			3	19	0
	0	11	4	0	4	3	1	4	10	2	0	5
erican States	0	0	4	0	8	10	0	5	10	0	15	0
	1	14	3	0	3	5	....			1	17	8
	0	16	5	0	18	6	0	16	10	2	11	9
	0	1	8	1	11	8	0	1	4	1	14	8
ican States	0	4	7	2	0	0	3	2	10	5	7	5
es	1	18	5	1	16	1	1	4	3	4	18	9
	8	4	5	2	1	2	....			10	5	7
	7	7	10	0	5	7	....			7	13	5

MOVEMENTS OF GOLD.

e discovery of gold in the year 1851 large quantities of that the form of coin as well as bullion—have been exported from lasian colonies every year. The returns of gold imported and rom each of the colonies, calculated for ten-year periods from 851 to the end of 1896, are given herewith. The tables also mount by which the exports have exceeded the imports in the lonies, or *vice versa*, as the case may be. The largest exporters will be found, are the largest producers, as Victoria, New nd Queensland. The other colonies now produce very little suffices to meet their local requirements. The returns of the gold imports and exports for New South Wales, it must be remembered, are swollen by large quantities of Queensland gold, which is simply sent to Sydney to be minted, and then exported in the shape of coin. The imports and exports for each colony were as follow :—

Colony.	Imports of Gold.					
	1851-60.	1861-70.	1871-80.	1881-90.	1891-96.	1851-96.
	£	£	£	£	£	£
New South Wales	3,874,764	12,148,037	13,308,140	18,018,550	16,492,046	[illegible]
Victoria	4,349,457	11,821,815	10,868,837	7,486,861	8,100,891	[illegible]
Queensland	......	367,025	1,383,822	2,532,705	2,109,572	[illegible]
South Australia	1,091,012	882,149	1,622,202	1,919,341	1,880,787	[illegible]
Western Australia	......	19,310	39,710	223,654	2,341,278	[illegible]
Tasmania	......	59,500	402,446	569,958	317,350	[illegible]
New Zealand	170,328	1,727,925	2,312,327	2,780,009	1,773,461	[illegible]
Australasia	9,485,561	27,025,761	29,937,484	33,531,078	33,015,380	[illegible]

Colony.	Exports of Gold.					
	1851-60.	1861-70.	1871-80.	1881-90.	1891-96.	1851-96.
	£	£	£	£	£	£
New South Wales	12,211,831	25,804,687	18,557,134	18,296,059	18,332,643	[illegible]
Victoria	90,691,591	74,430,857	48,091,469	30,593,232	18,108,898	[illegible]
Queensland	......	2,135,600	10,813,959	14,072,950	13,734,796	[illegible]
South Australia	2,991,967	486,516	521,893	1,245,793	1,848,448	[illegible]
Western Australia	......	38,896	1,710	179,334	3,518,658	[illegible]
Tasmania	843,029	25,245	567,486	1,442,712	1,131,885	[illegible]
New Zealand	219,309	22,022,747	16,527,470	10,417,390	6,336,865	[illegible]
Australasia	106,957,727	124,944,548	95,081,121	76,247,470	63,012,193	[illegible]

The excess of exports of gold for each colony during each of the periods shown was as follows :—

Colony.	1851-60.	1861-70.	1871-80.	1881-90.	1891-96.	1851-96.
	£	£	£	£	£	£
New South Wales	8,337,067	13,656,650	5,248,994	277,509	1,840,597	[illegible]
Victoria	86,342,134	62,609,042	37,222,632	23,106,371	10,008,007	[illegible]
Queensland	....	1,768,575	9,430,137	11,540,245	11,625,224	[illegible]
South Australia	1,900,955	*395,633	*1,100,309	*673,548	*32,339	[illegible]
Western Australia	....	19,586	*38,000	*44,320	1,177,385	[illegible]
Tasmania	843,029	*34,255	165,040	872,754	814,535	[illegible]
New Zealand	48,981	20,294,822	14,215,143	7,637,381	4,563,404	[illegible]
Total excess of exports	97,472,166	97,918,787	65,143,637	42,716,392	29,996,813	[illegible]
Average per annum	9,747,217	9,791,879	6,514,364	4,271,639	4,999,469	[illegible]

* Excess of Imports.

BANKING.

The laws relating to banks and banking at present in force are susceptible of great improvement, and the recent failure of many monetary institutions posing as banks has directed attention to the strong necessity for entirely revising the conditions under which deposits may be taken from the general public. All institutions transacting the business of banking are required by law to furnish quarterly statements of their assets and liabilities in a specified form, and from these statements and e periodic balance-sheets the tables in this chapter have been compiled. ıe returns furnished by the banks, though in compliance with the v of the colony, are by no means satisfactory, being quite unsuited the modern methods of transacting banking business; nor can they be ken without question as indicating the stability or otherwise of the nks. As a rule, nothing can be elicited beyond what is shown in the lance-sheets. These are published half-yearly, with the exception of ose of two banks which are issued annually. No uniformity is served as regards the dates of closing the balance-sheets, and the odes of presentation are equally diverse. Important items which ought be specifically stated are lumped with accounts of minor import, d, as a rule, current accounts are blended with other accounts, instead being separately shown. The value of the information vouchsafed the public is illustrated by the fact that it was impossible to obtain, om the publications of several institutions suspending payment during 93, the amount of their liabilities.

There are thirteen banks of issue operating in New South Wales, ur of which have their head offices in Sydney, two in Melbourne, two Queensland, one in New Zealand, and four in London. Of the four cal banks, three have branches outside New South Wales, and the urth confines its operations within the limits of the colony. Two the local banks—the Bank of New South Wales and the City Bank of dney—carry on their business under the provisions of special Acts incorporation, and the liability attached to the shareholder is limited the Acts to the amount subscribed for and an additional amount ual thereto; the Commercial Banking Company of Sydney (Limited) d the Australian Joint Stock Bank (Limited) are registered as nited companies. The following appears to have been the extent of the bility of shareholders of banks trading in New South Wales at the iddle of 1897:—

Bank.	Reserve or Capital Liability on ordinary shares when calls have been met.
	£
Bank of New South Wales	1,950,000
Commercial Banking Company of Sydney (Limited)	1,000,000
Australian Joint Stock Bank (Limited)	391,505
City Bank of Sydney	540,000
Commercial Bank of Australia (Limited)	Nil.
National Bank of Australasia (Limited)	750,000
Queensland National Bank (Limited)	320,000
Bank of North Queensland (Limited)	250,000
Bank of New Zealand	500,000
Bank of Australasia	1,600,000
Union Bank of Australia (Limited)	3,000,000
London Bank of Australia (Limited)	*750,000
English, Scottish, and Australian Bank (Limited)	539,863

* Includes £6,825 prepaid in respect of Reserve Liability.

CAPITAL RESOURCES OF BANKS.

The total capital and reserves (including balances of Profit and Loss account) of banks trading in New South Wales about the middle of 1897 amounted to £22,976,734, but of this amount only £12,999,095 was employed in the colony. The following is a statement of the capital paid up, distinguishing ordinary from preferential capital, and of the amount of reserves held by each bank at the date of balancing:—

Bank.	Date of balance-sheet.	Capital paid up.			Reserve Fund.
		Ordinary.	Preferential.	Total.	
		£	£	£	£
Bank of New South Wales	Sept., 1897 ..	1,950,000	Nil	1,950,000	1,192,330
Commercial Banking Co. of Sydney (Ltd.)	June, 1897 ..	1,000,000	Nil	1,000,000	1,010,000
Australian Joint Stock Bank (Limited) ..	June, 1897 ..	1,166,578	Nil	1,166,578	52,000
City Bank of Sydney	June, 1897 ..	400,000	Nil	400,000	109,244
Commercial Bank of Australia (Limited)..	June, 1897 ..	825,211	2,117,070	2,942,281	†Nil
National Bank of Australasia (Limited) ..	Sept., 1897 ..	1,704,769	305,780	2,010,549	Nil
Queensland National Bank (Limited)	June, 1897 ..	*453,886	Nil	453,886	Nil
Bank of North Queensland (Limited)	June, 1897 ..	200,000	Nil	200,000	Nil
Bank of New Zealand	Mar., 1897 ..	244,141	2,500,000	2,744,141	23,674
Bank of Australasia	April, 1897 ..	1,600,000	Nil	1,600,000	900,000
Union Bank of Australia (Limited)	Feb., 1897 ..	1,500,000	Nil	1,500,000	‡1,000,000
London Bank of Australia (Limited)	Dec., 1896 ..	§1,246,915	171,930	1,418,845	Nil
English, Scottish, and Australian Bank (Limited).	June, 1896 ..	970,988	Nil	970,988	Nil

* £480,000 written off since December, 1896. † The assets trust special reserve account amounts to £53,000. ‡ Includes £250,000 at contingency account. § Includes £6,825 prepaid in respect of reserve liability.

The preceding table shows the capital account at date of balancing, but most of the banks had made calls on their shareholders which will increase their paid-up capital. The amount of these calls and the total working capital that will be available when they are met are shown in the following table:—

Bank.	Capital called and being called up.		
	Capital paid up.	Amount of Calls to be paid on ordinary shares.	Total Working Capital.
	£	£	£
Bank of New South Wales	1,950,000	Nil	1,950,000
Commercial Banking Co. of Sydney (Limited)	1,000,000	Nil	1,000,000
Australian Joint Stock Bank (Limited)	1,166,578	7,937	1,174,515
City Bank of Sydney	400,000	Nil	400,000
Commercial Bank of Australia (Limited)	2,942,281	896,289	3,838,570
National Bank of Australasia (Limited)	2,010,549	45,231	2,055,780
Queensland National Bank (Limited)	453,886	26,114	480,000
Bank of North Queensland (Limited)	200,000	Nil	200,000
Bank of New Zealand	2,744,141	255,859	3,000,000
Bank of Australasia	1,600,000	Nil	1,600,000
Union Bank of Australia (Limited)	1,500,000	Nil	1,500,000
London Bank of Australia (Limited)	1,418,845	3,085	1,421,930
English, Scottish, and Australian Bank (Limited)	970,988	764	971,752

The calls being made, as shown in the table just given, represent a total of £1,235,279, and of this amount £7,937 is payable in Sydney, £941,520 in Melbourne, £26,114 in Brisbane, £255,859 in New Zealand, and £3,849 in London. The paid-up capital of banks operating in New South Wales has very largely increased during the past twenty-two years, viz., from £7,930,000 in 1875 to £18,357,268 in 1897;

ese figures have no reference to the capital actually employed in usiness of the banks, as will be seen from a subsequent table ng the excess of assets over liabilities in New South Wales, and re inserted only for the purpose of facilitating comparisons which nevitably arise when the question of the liabilities of banks is considered :—

Year.	Banks.	Paid-up Capital.	Year.	Banks.	Paid-up Capital.
	No.	£		No.	£
1875	10	7,930,000	1893	13	15,129,749
1880	11	9,531,212	1894	13	16,743,737
1885	14	10,512,300	1895	13	19,306,350
1890	17	13,929,326	1896	13	19,531,430
1891	16	13,526,136	1897	13	18,357,268
1892	14	12,384,637			

LOCAL BUSINESS OF BANKS.

banks are required by the Act of Council 4 Victoria No. 13, in the year 1840, to make quarterly statements of their business rescribed form; but these statements are not all made on the lines, and it is necessary, therefore, to make certain adjustments ler to put the figures on a comparative basis. The alterations t in the exclusion from the assets of the balances due by branches gencies outside New South Wales to the head office in Sydney. llowing shows the assets and liabilities, and the surplus assets of nks, at intervals from 1860 onwards; the surplus assets may be as representing the amount provided by the banks from their own ces. The figures relating to 1897 in this and subsequent tables to the quarter ended 30th September; for the preceding years efer to the last quarter :—

Year.	Assets within the Colony.	Liabilities within the Colony.	Surplus Assets (Capital and Reserves used in local business).
	£	£	£
1860	8,053,463	6,480,642	1,572,821
1865	9,193,540	6,962,315	2,231,225
1870	9,863,071	7,198,680	2,664,391
1875	15,545,507	15,056,485	489,022
1880	21,658,317	19,485,862	2,172,455
1885	37,737,869	29,687,296	8,050,573
1890	50,751,647	37,248,937	13,502,710
1891	51,934,372	37,589,764	14,344,608
1892	51,665,479	37,171,380	14,494,099
1893	48,794,036	34,102,172	14,691,864
1894	47,195,214	31,263,120	15,932,094
1895	45,622,329	32,037,052	13,585,277
1896	44,527,828	31,254,776	13,273,052
1897	43,855,421	30,856,326	12,999,095

If the table just given be compared with the previous one, showing the paid-up capital of the various banks doing business in the colony, it will be seen that the general tendency has been for the banks to increase the proportion of their own capital employed in the colony, although the last three years show a slight movement in the opposite direction. Thus in 1875 the paid-up capital of the banks was £7,930,000, and their reserves at the same date were £2,496,457, making a total of £10,426,457 available from their own resources, while their surplus assets amounted to only £489,022; ten years later, when the capital stood at £10,512,300, and the reserves at £5,421,998, or together £15,934,298, the surplus assets were returned at £8,050,573; and in 1890 the capital was £13,929,326, and the reserves £7,832,047, making a total of £21,761,373, while the surplus assets reached the very considerable proportion of £13,502,710. In September, 1897, however, the capital and reserves of the thirteen banks now open showed a total of £22,535,336, and the excess assets of the local business amounted to £12,999,095.

The banking returns do not admit of any useful deductions being made from them, as the classification, both of assets and liabilities, required by the Schedule to the Act is obsolete; thus, under the term deposits not bearing interest, the banks are accustomed to return interest accrued and all debts due by them other than deposits at interest, notes, and bills, the result being that in this respect the returns are misleading. It unfortunately happens, moreover, that there are no means of correcting the figures. That the over-statement is considerable will appear from the fact that the census returns showed deposits not bearing interest as £7,828,906, as compared with a total in the quarterly statements of £9,363,727.

The assets, which naturally form the most interesting feature of a bank's returns, show coin and bullion separately, but 95 per cent. of the other assets are marshalled together under the term "notes and bills discounted, and all other debts due to the bank," and the lines on which business is conducted are therefore entirely hidden from sight. The following statement of liabilities for the past eight years refers to local business only :—

Year.	Banks.	Notes in circulation.	Bills in circulation.	Deposits.			Balances due to other Banks.	Total Liabilities.
				Not bearing Interest.	Bearing Interest.	Total.		
	No.	£	£	£	£	£	£	£
1890	16	1,557,805	127,442	10,064,518	25,395,600	35,460,118	103,572	37,248,937
1891	15	1,674,049	146,202	9,188,873	26,470,817	35,659,690	109,823	37,589,764
1892	14	1,439,872	104,223	9,207,109	26,357,083	35,564,192	63,093	37,171,380
1893	13	1,804,531	75,086	8,557,840	23,584,119	32,141,959	80,596	34,102,172
1894	13	1,235,989	146,911	9,412,761	20,380,032	29,792,793	87,427	31,263,120
1895	13	1,223,864	117,327	10,222,437	20,406,822	30,629,259	66,602	32,037,052
1896	13	1,237,971	111,889	10,707,611	19,128,305	29,835,916	69,000	31,254,776
1897	13	1,137,940	102,807	10,499,140	19,066,295	29,565,435	50,144	30,856,326

The assets for the same period were as given in the following table:—

Year.	Banks.	Coin.	Bullion.	Legal Tender Notes.	Landed Property.	Notes and Bills discounted, and all other debts due to the Banks.	Notes and Bills of other Banks, and Queensland Treasury Notes.	Balances due from other Banks.	Total Assets.
	No.	£	£	£	£	£	£	£	£
1890	16	5,619,111	87,659	....	1,644,179	43,009,559	287,568	103,571	50,751,647
1891	15	4,717,659	79,768	....	1,692,940	45,068,914	265,268	109,823	51,934,372
1892	14	5,217,371	95,894	....	1,801,590	44,135,729	227,795	187,101	51,665,479
1893	13	5,877,891	95,386	148,467	1,918,196	40,024,354	429,620	300,122	48,794,036
1894	13	7,330,005	100,525	....	1,938,321	37,378,947	214,503	232,913	47,195,214
1895	13	7,364,659	151,619	....	1,919,017	35,707,153	222,731	257,150	45,622,329
1896	13	6,760,851	187,845	....	1,914,483	35,116,696	223,487	324,466	44,527,828
1897	13	5,704,800	223,871	....	1,817,227	35,644,565	193,707	271.251	43,855,421

METALLIC RESERVES OF BANKS.

The proportion of metallic reserves which banking institutions must habitually keep in stock is not fixed by any enactment. Compared with the total liabilities, and with deposits at call and note circulation, the quantity of coin and bullion has varied very considerably from year to year, as the following statement shows; but prior to 1892 the proportion of gold to circulation and deposits at call rarely reached 50 per cent., and the proportion to total liabilities varied between 13 and 26 per cent. The approach of the crisis of 1893 was foreseen, or at all events most institutions strengthened their reserves in anticipation of the strain, while since the crisis all the banks have accumulated gold, so that their stock of coin and bullion in the September quarter of 1897 averaged £5,928,671—that is to say, over five times the note circulation, and over one-half of the total liabilities at call. There can be no doubt that the present gold accumulations of the banks are greatly in excess of ordinary business requirements, and are maintained solely as a precaution against a revival of the unsettled conditions which marked the year 1893:—

Year.	Coin.	Bullion.	Total.	Proportion of Metallic Reserves—	
				To total Liabilities.	To deposits at call and note circulation.
	£	£	£	per cent.	per cent.
1860	1,578,424	90,052	1,668,476	25·7	*
1865	1,328,504	125,554	1,454,058	20·9	*
1870	1,291,177	86,744	1,377,921	19·1	*
1875	2,317,600	104,947	2,422,547	16·1	40·4
1880	3,488,554	75,008	3,563,562	18·3	49·5
1885	4,027,055	76,260	4,103,315	13·8	39·2
1890	5,619,111	87,659	5,706,770	15·3	49·1
1891	4,717,659	79,768	4,797,427	12·8	44·2
1892	5,217,371	95,894	5,313,265	14·4	57·4
1893	5,877,891	95,386	5,973,277	17·5	57·7
1894	7,330,005	100,525	7,430,530	23·8	69·8
1895	7,364,659	151,619	7,516,278	23·5	65·7
1896	6,760,851	187,845	6,948,696	22·2	58·2
1897	5,704,800	223,871	5,928,671	19·2	51·2

* Amount of deposits at call unobtainable.

ADVANCES BY BANKS.

Under the head of advances are included bills and promissory notes discounted, cash credits, and miscellaneous debts. The bulk of advances made are secured by the mortgage of real estate or by the depositing of deeds over which the lending institution acquires a lien; the discounting of trade bills does not amount to more than 14 per cent. of the total cash credits and overdrafts. The banking returns are in such a defective form that an account of the nature of advances made, and the class of security advanced against, cannot be given. The most interesting summary that can be made is that which the following table supplies:—

Year.	Advances.	Ratio of Advances to Deposits.	Amount of Advances per Inhabitant.		
	£	per cent.	£	s.	d.
1860	5,780,700	111·9	16	17	6
1865	7,100,361	121·8	17	15	0
1870	7,814,116	127·9	15	18	11
1875	12,483,713	91·4	21	17	1
1880	17,210,205	96·2	23	12	4
1885	31,344,909	117·4	33	16	1
1890	43,009,559	121·3	39	0	8
1891	45,068,914	126·4	39	8	3
1892	44,135,729	124·1	37	7	2
1893	40,024,354	124·5	33	0	4
1894	37,378,947	125·4	30	4	2
1895	35,707,153	116·6	27	18	10
1896	35,116,696	117·7	27	1	3
1897	35,644,565	120·6	27	3	7

The useful purpose which the banking system serves may be readily realised from the foregoing statement. The period extending from 1875 right on to 1885 was, on the whole, one of trade prosperity, and throughout those years the ratio of advances to deposits ranged between 91 and 117 per cent. Since 1885 New South Wales, in common with the other colonies, has suffered more or less from depression, and the ratio of advances to deposits has stood considerably higher, viz., from 113 to 126 per cent.

DEPOSITS IN BANKS.

The total amount of money deposited with the thirteen banks operating in New South Wales in the middle of 1897 was approximately £105,357,643, and of this sum £29,565,435 was received locally. The excess of the total over local deposits was employed in the various countries to which the banks' business extended, some of course being used in New South Wales, but from the very nature of the transactions of the banks it is not possible to do more than make a surmise as to the amount so used. Dealing only with local deposits, the following statement shows the average amount of money deposited at various periods commencing with 1860; the distinction between interest-bearing deposits and those at call was first made in 1875:—

Year.	Deposits bearing Interest.	Deposits not bearing Interest.	Total Deposits.
	£	£	£
1860	....	....	5,164,011
1865	....	....	5,827,098
1870	....	....	6,107,999
1875	8,775,882	4,875,010	13,650,892
1880	11,948,383	5,934,641	17,883,024
1885	18,038,497	8,670,889	26,709,386
1890	25,395,600	10,064,518	35,460,118
1891	26,470,817	9,188,873	35,659,690
1892	26,357,083	9,207,109	35,564,192
1893	23,584,119	8,557,840	32,141,959
1894	20,380,032	9,412,761	29,792,793
1895	20,406,822	10,222,437	30,629,259
1896	19,128,305	10,707,611	29,835,916
1897	19,066,295	10,499,140	29,565,435

The deposits reached their highest level in 1891, when there was entrusted to the banks a total of £35,659,690; since the date mentioned deposits to the extent of over five millions have been withdrawn, the reduction being entirely in interest-bearing deposits, which were very largely withdrawn in 1893 at the time of the bank crisis, and during the succeeding year. The withdrawals in 1894 were probably due to a combination of circumstances. Previous stoppages of payments had made many timorous depositors withdraw their fixed deposits on maturity, and place the money in the savings banks, as is evidenced by the fact that the New South Wales and Post Office Savings Banks increased their deposits by over one million and a half from 1892 to 1894; while the capital called up by the banks themselves absorbed a considerable sum which would otherwise have remained on deposit. To these two causes which tended to decrease the money on deposit with the banks may be added a third—the withdrawal of money for hoarding. That this last must have been considerable may be argued from the fact that the stock of gold in private hands was increased during 1 £1,003,473, and in 1894 by £321,793, while the gold need circulation probably decreased during those years. Since 1894 has been a tendency to withdraw money from fixed deposit and t it at current account. The current accounts have increased b one million since 1894, while the total deposits show a decrease o £200,000 since that period.

The interest offering for fixed deposits has now fallen to 3 pe for sums deposited for twelve months; for six months' deposi interest allowed is at the rate of 1½ per cent. The practice of all interest on money fixed for terms of less than six months was d tinued in May, 1894. The rates quoted, which were fixed on th March, 1896, are much the lowest that have been offered since were first opened for business, and money equal to their requirem freely offered. The following is a statement of the average rat twelve months' deposits from 1860 onwards. The figures of th four years do not include interest payable on deferred deposi reconstructed banks :—

Year.	Bank Interest on Deposits for twelve months.	Year.	Bank Interest on Deposits for twelve months.
	per cent.		per cent.
1860	5	1891	4¾
1865	6	1892	5
1870	5	1893	4½
1875	5¼	1894	4¼
1880	5	1895	3½
1885	5	1896	3
1890	4½		

Under normal conditions the annual rate of interest paid o deposits is uniform for all banks; but some of the institution have undergone reconstruction have not been in a position to the rates on a large proportion of the deposits, so that they are the ordinary market rate of 3 per cent. on deposits receive reconstruction, while rates varying from 3 to 4½ per cent. ar paid on the extended deposits. The reconstructed banks have p release their extended deposits at any time on giving the necessar of their intention to do so, and the deposits when renewed ar accepted at the ordinary or reduced rate.

The liability to depositors of the reconstructed banks at th of suspension was £58,914,585; but up to the middle of £29,905,475 of the deposits had been liquidated, £2,594,780 into preferential share capital, and £6,514,651 into inscribed petual stocks or debentures, apart from £750,000 inscribed stock by the Union Bank, so that there were then deposits to the e £19,899,679 awaiting release. The complete statement of the counts of the thirteen banks operating at the middle of 1897 was as own below :—

Banks.	Deposits.					
	Capitalised (Preferential Capital).	Invested in bank stocks.	Extended deposits.	Fixed at ordinary rates.	At current account.	Total.
	£	£	£	£	£	£
nk of New South Wales	....	....	......	10,570,120	8,351,533	18,921,653
nmercial Banking Co. of Sydney (Ltd.)	....	....	......	5,978,239	3,378,008	9,356,247
stralian Joint Stock Bank (Ltd.).	....	367,888	5,898,055	120,399	747,832	7,134,174
y Bank of Sydney..............	....	....	......	687,185	405,917	1,093,102
nmercial Bank of Australia (Ltd.)	2,117,070	....	5,185,255	404,385	1,517,153	9,223,863
tional Bank of Australasia (Ltd.)	305,780	....	2,401,000	1,285,948	2,692,594	6,685,322
eensland National Bank (Ltd.)..	....	3,117,369	1,833,326	366,130	1,677,648	6,994,473
nk of North Queensland (Ltd.)..	....	50,000	......	104,127	106,002	260,129
nk of New Zealand	....	....	......	3,618,287	4,474,656	8,092,943
nk of Australasia	....	....	......	7,183,303	5,597,872	12,781,175
ion Bank of Australia (Ltd.).....	....	750,000	......	7,556,827	6,850,896	15,157,723
ndon Bank of Australia (Ltd.) ..	171,930	....	3,716,087	539,940	958,196	5,386,153
glish, Scottish, and Australian Bank (Ltd.)	....	2,979,394	865,956	298,872	829,741	4,973,963
Total	2,594,780	7,264,651	19,899,679	38,713,762	37,588,048	96,060,920

Some of the reconstructed banks accept their own deposit receipts at ce value in liquidation of debts owing to them, and in payment of lls where debtors are unable to pay cash. Holders of negotiable posits, however, wishing to dispose in open market are obliged to cept prices below the face value, as will be seen in the subjoined table hich gives the rates offered for deposits of four banks. Towards e close of 1895 the Bank of North Queensland and the Commercial nking Company of Sydney released the balance of their locked-up posits. The prices here quoted are those ruling at the beginning July, 1897 :—

Bank.	Buying Price.
	£ s. d.
Australian Joint Stock Bank (Ltd.)—	
Repayable to 1907	0 15 3
Do after 1907..................................	0 9 6
Commercial Bank of Australia (Ltd.)—	
Repayable to 1906	0 17 6
Do 1916, or sooner if possible	0 15 10
English, Scottish, and Australian Bank (Ltd.)—	
Perpetual	0 13 6
Repayable to 1904	0 18 6
Others	0 14 9
Interminable	0 11 6
National Bank of Australasia (Ltd.)	1 0 0

The overdraft and discount rates have been almost stationary the last ten years, notwithstanding that the interest payable for placed on fixed deposit has during the same period fallen from per cent. Under ordinary circumstances, discount and overdraf would have moved down with the interest rates paid to depositors it is evident from a consideration of the profit and loss accounts various institutions that the banks are not in a position to mak appreciable reduction in the discount rates, notwithstanding the terms upon which they themselves can borrow.

The rates for overdrafts and discounts for the ten years ended were as follow:—

Year.	Overdraft Rates.	Discount Rates.	
		Bills at 3 months.	Bills over 3 months.
	per cent.	per cent.	per cent.
1887	8 to 9	6 to 8	7 to 9
1888	8 ,, 9	6 ,, 7	7 ,, 8
1889	9	7	8
1890	9	7	8
1891	9	7	8
1892	9	7	8
1893	8½ to 9	7	8
1894	7 ,, 9	6½ to 7	7 to 8
1895	7 ,, 8	6 ,, 6½	7
1896	6 ,, 7½	6 ,, 6½	7 to 8

The bank exchange rate on London, at 60 days' sight, averages 1 per cent., but is subject to a good deal of fluctuation. Duri height of the bank panic in May, 1893, it was 3½ per cent., the at that date requiring all their available assets for other purposes rates for the ten years ended 1896 were:—

Year.	Exchange rate on London at 60 days sight.	
	Buying.	Selling.
	per cent.	per cent.
1887	98½ to 100	100 to 100¾
1888	99½ ,, 100⅜	100¼ ,, 100⅞
1889	99½ ,, 100	100½ ,, 100⅞
1890	99⅜ ,, 100	100⅜ ,, 101¾
1891	99⅛ ,, 100	100⅛ ,, 100⅞
1892	99⅜ ,, 99⅞	100½ ,, 100⅝
1893	97 ,, 99¾	100½ ,, 100¾
1894	99½ ,, 99⅞	100½ ,, 100¾
1895	99½ ,, 99¾	100⅝ ,, 100¾
1896	99½ ,, 99¾	100½ ,, 100¾

BANKS' EXCHANGE SETTLEMENT.

The Banks' Exchange Settlement Office, which was established in Sydney on the 18th January, 1894, is not a clearing-house in the accepted term, as the exchanges are still effected daily at the banks by clerks of each institution; but the results of the daily operations are notified to the Secretary of the Banks' Exchange Settlement, who establishes the daily credit of each bank with the pool. The "Pool" is placed in the hands of three trustees, and consists of £700,000 in gold, which is deposited in the vaults of three of the banks, and cannot be circulated or disturbed. The contributions to the "Pool" are according to the volume of the operations of each bank. The Secretary notifies each bank daily of the amount of its credit with the "Pool," and no bank is permitted to allow its balance to continue below 25 per cent. of the fixed contribution. In the event of its credit reaching this margin, the bank is required to make up its deficiency with gold; this payment, however, is not made to the pool, but to such other banks as may happen to have at their credit with the pool a larger sum than is required by the agreement. This arrangement enables the £700,000 comprising the pool to remain intact.

The volume of the exchanges monthly during 1896 is shown in the following table:—

Period.	Amount of Exchanges.	Period.	Amount of Exchanges.
	£		£
Four weeks ending 27 Jan., 1896 ..	9,469,324	Four weeks ending 7 Sept., 1896..	9,153,714
" 24 Feb., " ..	9,096,078	" 5 Oct., " ..	8,487,800
" 23 Mar., " ..	7,584,848	" 2 Nov., " ..	9,991,871
" 20 April, " ..	8,583,651	" 30 Nov., " ..	10,000,911
" 18 May, " ..	8,573,676	Five weeks ending 31 Dec., " ..	11,785,931
" 15 June, " ..	7,938,469		
" 13 July, " ..	9,267,812	Total ....£	117,718,862
" 10 Aug., " ..	7,784,777		

NOTE CIRCULATION OF BANKS.

The issue of paper money is not at present limited by an enactment, the law regulating note issue having lapsed on the 9th October, 1895. Under the Stamp Duties' Act of 1880 a note tax of 2 per cent. is imposed on the average circulation of each bank within the colony; this tax on the present issue yields a return of between £30,000 and £40,000 per annum. The note circulation of banking companies has been declining, not only as compared with the population, but in actual volume. In 1885 there was an average of £1,793,686, representing about £1 18s. 8d. per inhabitant; while in 1897 the total had fallen to £1,137,940, and the average per inhabitant to 17s. 4d. In 1860 the note circulation was as much as £2 17s. 5d. per head, and in 1882,

£2 1s. 10d. The following is a statement of t
bills in circulation at intervals since 1860 :—

Year.	Notes in Circulation.	Bills in Circulation.	Tot
	£	£	
1860	949,849	62,505	1,01
1865	729,076	67,875	79
1870	695,366	50,515	74
1875	1,114,411	37,008	1,15
1880	1,260,772	51,698	1,31
1885	1,793,686	59,327	1,85
1890	1,557,805	127,442	1,68
1891	1,674,049	146,202	1,82
1892	1,439,872	104,223	1,54
1893	1,804,531	75,086	1,87
1894	1,235,989	146,911	1,38
1895	1,223,864	117,327	1,34
1896	1,237,971	111,889	1,34
1897	1,137,940	102,807	1,24

The law does not require any special reserve
bank notes, but, as already pointed out, the
covered by the reserves ; thus in September,
at £1,137,940, while the gold in hand was £5,
The lowest value for which notes are issued
bulk of the issue is of this denomination.
the Bank Notes' Act of 1893, under which the
(twelve in number) were a first charge on th
tender throughout the colony at all places e
the banks issuing, there was a special tax
average monthly issue. This tax was in subst
of 2 per cent., and ceased with the lapse of the

WORKING EXPENSES AND P

The published balance-sheets of banks as
information of the results of their working,
it is impossible to ascertain the amount o
the matter of management expenses equal
one bank whose head office is in the colony g

hareholders. The net profits are therefore the only data on which mparative statement can be based, and the ratio of such to paid-up tal and reserves, and to the banks' trading and total assets, will be nd in the subjoined statement:—

Bank.	Net Profits for twelve months, 1896-7.	Ratio of Net Profits to—		
		Paid-up Capital and Reserves.	Total Trading Assets.	Total Assets of all kinds.
	£	per cent.	per cent.	per cent.
of New South Wales	177,361	5·60	0·72	0·71
nercial Banking Co. of Sydney (Limited)	80,185	3·96	0·68	0·65
ralian Joint Stock Bank (Limited)	*101,706	....	....	....
Bank of Sydney	16,119	3·17	1·05	0·97
nercial Bank of Australia (Limited)	94,165	3·20	0·95	0·90
nal Bank of Australasia (Limited)	36,173	1·77	0·46	0·41
usland National Bank (Limited)	*27,034	....	....	....
of North Queensland (Limited)	3,720	1·78	0·72	0·70
of New Zealand	56,891	2·03	0·46	0·42
of Australasia	85,776	3·55	0·48	0·47
n Bank of Australia (Limited)	96,415	3·82	0·46	0·44
on Bank of Australia (Limited)	*4,627	....	....	....
sh, Scottish, and Australian Bank (Limited)	*27,950	....	....	....

* Loss.

ntimately connected with the question of profits is that of working enses, and it must be confessed that the cost of working banking itutions in Australasia is undoubtedly large. This is partly due to wide and sparsely populated area over which operations are carried and partly to the class of business in which banks are engaged. The owing is a statement of the cost of management of the several banks merated:—

Bank.	Expenses of Management for twelve months, 1896–7.	
	Total.	Ratio to bank's resources (Paid-up Capital, Reserves, Deposits, and Note Circulation).
	£	per cent.
of New South Wales	Not available.	
nercial Banking Company of Sydney (Limited)		
ralian Joint Stock Bank (Limited)		
Bank of Sydney		
nercial Bank of Australia (Limited)	87,303	1·32
nal Bank of Australasia (Limited)	111,512	1·37
nsland National Bank (Limited)	70,913	0·81
of North Queensland (Limited)	9,731	2·09
of New Zealand	Not available.	
of Australasia	209,283	1·28
n Bank of Australia (Limited)	221,295	1·14
on Bank of Australia (Limited)	72,109	1·06
sh, Scottish, and Australian Bank (Limited)	84,457	1·41

It will be observed that the expenses of working the four local banks and the Bank of New Zealand are not shown in the statement just given. These banks do not disclose even to their shareholders the details of their business, so that the reference to the cost of banking business is seriously incomplete; but taking such banks as are enumerated as a guide to the whole of the institutions, the total expenses of management of the thirteen banks which have offices in the colony may be set down for the year 1896–7 at £1,521,900.

The following statement may be taken as approximately correct:—

Total trading assets	£137,876,010
Capital and reserves	22,744,670
Gross earnings, less reserve for bad and doubtful debts, and rebate on bills current	4,293,150
Gross expenditure, including interest	3,807,650
Net earnings	485,500

Compared with the total assets, the net earnings represent 0·33 per cent., and compared with the banks' own resources, *i.e.*, capital and reserved profits, 2·13 per cent. The gross expenditure set down above may be divided into expenses of management, £1,521,900, and interest, £2,286,750; these together amount to 88·7 per cent. of the gross earnings, the management expenses being 35·4 per cent., and the interest 53·3 per cent. It would therefore appear that for every £1 of net earnings, £3 2s. 8d. are spent in management expenses, and £4 14s. 3d. in interest. The cost of working banking institutions in Australia is undoubtedly very large; but this class of business is everywhere expensive, and an analysis of the balance-sheets of over one hundred British joint stock banks shows that the expenses of management amount to nearly 16s. for every £1 of net earnings.

In order that a comparison may be made with the results obtained before the financial crisis, the following figures for the year 1892 are given:—

Total trading assets	£155,582,833
Capital and reserves	19,084,148
Gross earnings, less reserve for bad and doubtful debts	7,638,400
Gross expenditure, including interest	6,068,600
Net earnings	1,569,800

The net earnings equal 1·01 per cent. of total assets, and 8·23 pe cent. of capital and reserves.

The following table affords a comparison of the working of New South Wales banks with the joint stock banks in the United Kingdom. The figures relate to the years 1896 and 1897 :—

Banks.	No. of Banks	Capital and Reserves.			Total Earnings.	Deposits.	
		Paid-up Capital.	Reserves and Undivided Profits.	Total.		Total.	Percentage of Earnings to Deposits.
		£	£	£	£	£	
English	99	59,881,000	33,220,000	93,101,000	6,169,000	552,300,000	1·12
Scotch......	10	9,302,000	7,027,000	16,329,000	1,305,000	95,700,000	1·36
Irish	9	7,109,000	3,655,000	10,764,000	854,000	45,500,000	1·88
N. S. Wales..	13	18,357,268	4,377,401	22,734,669	485,500	29,565,400	1·63

The net profits of the banks of this colony, and the allotment of such under the accepted heads, are given below. It will be noticed that in a few instances only have the reserve funds been strengthened; it should be stated, however, that two institutions have increased the reserve funds by premiums paid on new shares. The particulars are as follow, the dates of the balance-sheets being shown on page 924 :—

Bank.	Balance brought forward.	Net Profits for half-year.	Total.	Half-yearly Dividend.		Amount transferred to Reserve Fund.	Amount carried forward.
				Rate per cent. per annum.	Amount.		
	£	£	£		£	£	£
Bank of New South Wales	22,502	89,462	111,964	9	87,750	7,650	16,564
Commercial Banking Co. of Sydney (Ltd.).	15,138	40,119	55,257	8	40,000	Nil.	15,257
Australian Joint Stock Bank (Ltd.).	Nil.	Nil.*	Nil.	Nil.	Nil.	Nil.	Nil.
City Bank of Sydney	8,260	8,048	16,308	4	8,000	Nil.	8,308
Commercial Bank of Australia (Ltd.).	5,940	52,529	58,469	Pref. 2 Ord. nil.	21,170	33,000†	4,299
National Bank of Australasia (Ltd.).	23,566	18,275	41,841	Pref. 5 Ord. nil.	7,644	Nil.	34,197
Queensland National Bank (Ltd.).	45,347	—25,425	19,922	Nil.	Nil.	19,922‡	Nil.
Bank of North Queensland (Ltd.).	7,365	2,004	9,369	Nil.	Nil.	Nil.	9,369
Bank of New Zealand	40,084	56,891§	96,975	Pref. 3½ Ord. nil.	21,875‖	35,709¶	39,391
Bank of Australasia	12,622	45,375	57,997	5	40,000	Nil.	17,997
Union Bank of Australia (Ltd.).	24,489	37,578	62,067	5	37,500	Nil.	24,567
London Bank of Australia (Ltd.)	6,208	— 4,396**	1,812	Nil.	Nil.	Nil.	1,812
English, Scottish, and Australian Bank (Ltd.).	— 6,278	—27,950§	—34,228	Nil.	Nil.	—34,228††	Nil.

* Loss on half-year's transactions of £53,506 written off old Reserve Fund. † To Assets Special Reserve Account. ‡ To Contingency Account. § For twelve months. ‖ Includes three months dividend on preferential shares to 31st March, 1896. ¶ Paid to Assets Realization Board, and amount carried forward will be paid to same Board. ** Loss on half-year's transactions of £4,396. †† To Contingent Fund.

Most of the banks have contrived to reduce their working expenses during the last few years. This has been accomplished mainly by closing unprofitable branches, of which 464 have been closed during five years. There are seven institutions for which the expenses of management for 1894 and 1896–7 can be stated; these banks show a reduction in expenditure to the extent of nearly 7½ per cent.

The number of banks and branches open throughout New South Wales in 1897 was 423, or 81 less than in 1892. This gives a proportion of one bank or branch to every 3,100 persons. In England the proportion is one bank to 11,000 persons, and in Scotland one to every 4,100.

DIVIDENDS OF BANKS.

No feature of banking business was, until a few years ago, so conspicuous as the large dividends. The vast changes brought about by the bank crisis of 1893 materially interfered with the earning powers of banks, and of the thirteen operating in the colony eight were not able to declare a dividend on their ordinary share capital during the year 1896–7. A comparison between 1892–3—that is, the year before the crisis—and the year 1896–7 is afforded by the following table, which refers only to dividends paid on ordinary share capital:—

Bank.	Dividend per cent.	
	1892–3.	1896–7.
Bank of New South Wales	17½	9
Commercial Banking Company of Sydney (Limited)	25	8
Australian Joint Stock Bank (Limited)	15	Nil.
City Bank of Sydney	10	4
Commercial Bank of Australia (Limited)	12½	Nil.
National Bank of Australasia (Limited)	12½	Nil.
Queensland National Bank (Limited)	10	Nil.
Bank of North Queensland (Limited)	5	Nil.
Bank of New Zealand	5	Nil.
Bank of Australasia	12½	5
Union Bank of Australia (Limited)	12	5
London Bank of Australia (Limited)	8	Nil.
English, Scottish, and Australian Bank (Limited)	4	Nil.

SAVINGS BANKS.

The institutions classed as savings banks may be divided into two kinds—those worked in conjunction with the Post Office, and, consequently, directly administered by the State; and those under trustees, who are nominated by the Government. The declared objects of these banks are to encourage thrift in the working classes, and to provide a safe investment for the funds of charitable institutions, friendly societies, and such like. The savings banks have, however, become so popular that all classes of the community are represented among their depositors.

The Post Office or Government Savings Bank was established in

871, and the Savings Bank of New South Wales as far back as 1832. he rate of interest in the former institution was reduced on the 1st uly, 1896, to 3 per cent. per annum. At the close of that year the abilities of the bank amounted to £4,374,216, of which £4,372,965 epresented deposits, and £1,251 balance of profit and loss account. The vestments made by the Treasury on behalf of the bank were as follow:—

	£
Government Debentures	108,200
Funded Stock, 36 Vic. No. 21	296,467
,, 56 Vic. No. 1	1,000,000
1924 Stock, 58 Vic. No. 14	20,000
1925 ,, and Funded Stock, 59 Vic. No. 6	530,000
Treasury Bills, 53 Vic. No. 9	809,000
,, 59 Vic. No. 22	1,024,700
Cash at credit of Trust Account	491,923
,, in hands of Controller	27,203
Interest due on Investments and on uninvested Funds, at 3 per cent.	66,723
Total	£4,374,216

The Savings Bank of New South Wales is administered by a managing rustee and nine ordinary trustees. Unlike the Post Office Savings ank, the funds of this institution are applied to investments of a general ature, such as mortgages, Government and municipal securities, and eposits with banks of issue and the Treasury. The amount invested nder each head, including interest accrued, at the close of 1896, and he average rate of interest obtained, were as follow:—

How invested.	Amount.	Average Rate of Interest charged.
	£	per cent.
Mortgages	1,063,915	5·47
Government and Municipal Securities	60,550	5·12
Treasury Bills	*	4·25
Fixed Deposits:—		
Banks of Issue	902,813	4·13
Treasury	2,195,270	3·44
Uninvested	196,391	......
Total	4,418,939	4·27

* The Bills were paid off during the month of December.

The reserve fund, depreciation account, and profit and loss account, on the 31st December, 1896, amounted to £268,796. According to the published statements of this institution, it could pay £1 1s. 3½d. for every £1 liability. The classification of the deposits on the 1st January, 1897, was as follows:—

Classification.	Depositors.	Deposits.	Average per Depositor.
	No.	£	£ s. d.
£20 and under	39,571	173,832	4 7 10
Over £20 and under £50 ...	9,925	320,938	32 6 9
£50 and under £100	7,596	538,556	70 18 1
£100 ,, £200	8,733	1,211,728	138 15 1
£200 ,, £300	7,026	1,492,220	212 7 9
£300 and upwards	371	412,384	1,111 10 11
Total	73,222	4,149,658	56 13 5

During 1896 interest was allowed in the New South Wales Savings Bank at the rate of 3½ per cent. per annum on accounts closed during the year. On accounts current at the close of a year a higher rate is allowed; this latter is not fixed, but 4 per cent. was paid for the year 1896. Both in the Post Office Savings Bank and in the New South Wales Savings Bank sums of 1s. and any multiple of that amount may be deposited; but with the exception of the funds of charitable institutions and friendly societies, deposits exceeding £200 do not bear interest on such excess. The bulk of the deposits over £200 probably belong to institutions of the classes mentioned.

During the year 1896 there was an increase of 10,806 in the number of depositors in the savings banks, and of £449,048 in the amount of the deposits. This increase was partly due to the extension of the Post Office system, under which there was an addition of 8,683 depositors and £251,265 in deposits, and partly to the withdrawal of money from the ordinary banks of issue. By comparing the annual figures giving the amount deposited per inhabitant, the increase will be found to be proportionately greater than that of the population. The number of depositors at the close of the last three years and the amount to their credit were as follow :—

Banks.	1894.		1895.		1896.	
	Depositors	Deposits.	Depositors	Deposits.	Depositors	Deposits.
	No.	£	No.	£	No.	£
Savings Bank of New South Wales	67,512	3,583,075	71,099	3,951,875	73,222	4,149,658
Post Office Banks...	122,795	3,633,925	131,703	4,121,700	140,386	4,372,965
Total	190,307	7,217,000	202,802	8,073,575	213,608	8,522,623

Registered Companies.

The Land, Building, Investment, and Trading Companies established with the object of making profit and doing general business, may be registered under the Companies Act of 1874; Benefit Building, Investment, Co-operative, and Industrial Societies, worked for the mutual benefit and advantage of the subscribing members only, may be registered under the Friendly Societies' Act of 1873; and Mining Companies in which the shares carry no liability fall under the No-liability Mining Companies' Act of 1881.

The provisions of the Companies' Act are so framed that they are applicable to nearly all classes of financial institutions, very few of which are now carried on under special Acts. According to the records of the Registrar of Joint Stock Companies, there appeared to be about 558 companies whose registration stood good at the middle of 1897, but it is believed that in this number are included some companies which have really passed out of existence without the formal and legal steps required by the Act being taken.

Registered companies are required to furnish their shareholders with a periodical balance-sheet, according to a prescribed form, and to forward to the Registrar an annual statement showing the share register and the transactions of the capital account. Besides this, companies registered subsequent to the year 1879, receiving money on deposit within the colony, are required to furnish quarterly statements of the average assets and liabilities of their local business in the same manner as banking companies. Of the 558 companies in operation at the middle of 1897, only 19 were returned as receiving money on deposit; the remaining companies, with an exception here and there, conduct their business on the subscribed capital alone.

The registrations under the Companies' Act for the five years ended 1896 were:—

Registrations.	1892.	1893.	1894.	1895.	1896.
New Companies registered	74	73	90	77	71
Old Companies incorporated by Act of Parliament, registered under clause 224 of the Act, for purpose of winding-up	....	4	....	....	....
Companies wound-up	80	78	57	71	55
Declarations, statements, etc., that certain Companies have been defunct	74	156	57	119	46
Amount of fees received £	1,317	1,123	1,038	1,034	899

In the number of companies shown in the above table as wound up are included several defunct companies which have been reconstructed, and in the number shown as having become defunct during the same period are included many which ceased operations in previous years without notifying the Registrar at the proper time; still, after making all necessary allowances on these points, the five years mentioned show an unusually large number of winding-up notices.

During 1890 most of the deposit, land, buildi
panies were presumed to be in a flourishing con
to shareholders were very large, and the rates a
considerably in excess of those current in the b
have been expected, the high interest offered wa
be resisted by a section of the investing publ
placed in these institutions with the utmost co
be available when required. This confidence,
be, in many instances, unmerited. The shrink
the depreciation of real estate generally, put
institutions working on speculative lines, as
companies that were conducted on reasonable
1891, three of these institutions suddenly susp
were followed within a short time by others
placed in liquidation; while a considerable
institutions are now carrying on their business
the Joint Stock Companies Arrangement A
passed to afford relief to *bona fide* institutions w
their own, became embarrassed. This Act expir
but Parliament extended its operations until th

The liabilities, assets, and paid-up capital
companies, for the quarter ended September, 1

Companies.	Number.	Liabilities (exclusive of Liabilities to Shareholders).			
		Deposits.	Other Liabilities.	Total.	Landed Property
		£	£	£	£
Investment	16	484,912	555,781	1,040,693	1,363,341
Trading	3	163,016	738,945	901,961	834,63
Total	19	647,928	1,294,726	1,942,654	2,197,98

The difficulties into which the deposit com
most part be attributed to their practice of bo
periods, and locking it up for long terms.
many so-called building societies indulged i
chases, and having retailed the land at enhance
over extended periods, proceeded to divide the
the shareholders, with a result that might ea
for in many cases the purchasers, after paying
the price, left the allotments on the hands o
anticipated profits were therefore purely vision
were really never earned, but, in many insta
from the deposits.

Benefit Building and Investment Societies.

According to the provisions of the Friendly Societies Act of 1873, ny number of persons may form themselves into a Benefit Building and nvestment Society for the purpose of raising money by subscription to nable members to erect and purchase dwellings, etc., which must be ecured to the society by mortgage until the amount of the shares has een fully paid. These institutions, as previously mentioned, are stablished solely for the benefit and advantage of the subscribing embers, and their operations are, as a rule, confined to the subscrip-ons. There were, however, 11 institutions in 1896 receiving money n deposit from the general public, the aggregate amount of which was 424,292. At the close of 1896 the Benefit Building and Investment ocieties which had been registered under the Friendly Societies Act umbered 130, of which only 32 were in operation at that date. Of the her institutions, some had ceased to exist through being Terminating ocieties; others had become Limited Companies under the Companies ct, and consequently ceased to operate under the Friendly Societies Act; d a large number had become defunct.

Returns have been received from 29 of the 32 institutions operating. he liabilities and assets, etc., of these 29 societies for the year 1896–7 ere as follow :—

Societies.	Number.	Liabilities (exclusive of Liabilities to Shareholders).			Assets.			Paid-up Capital and Contingency Funds.
		Deposits.	Other Liabilities.	Total.	Advances.	Other Assets.	Total.	
		£	£	£	£	£	£	£
rr-Bowkett	8	Nil.	4,927	4,927	69,852	3,715	73,567	57,359
ilding	5	8,536	24,657	33,193	46,836	7,028	53,864	21,291
ilding and Investment.	10	238,667	22,630	261,297	640,165	67,924	708,089	440,175
nd, Building, and Investment.	6	177,089	10,809	187,898	334,657	88,862	423,519	221,002
Total	29	424,292	63,023	487,315	1,091,510	167,529	1,259,039	739,827

Co-operative Trading and Industrial Societies.

Particulars of these societies are given in the chapter of this volume ealing with Employment and Production.

No-Liability Mining Companies.

Under the No-Liability Mining Companies' Act of 1881, shareholders any mining company registered under the Act are not liable to be ed for calls or contributions; if calls are made, shares on which they are t paid within twenty-one days after the expiration of the period fixed are forfeited. Companies registered under this Act are also subject to certain provisions of the Companies' Act of 1874. The total registrations during sixteen years numbered only 616; it would therefore appear that, in spite of the low registration fees, the provisions of the Act are not very largely made use of. The registrations during the last seven years were as follow :—

Year.	Registrations.
1890	73
1891	76
1892	43
1893	15
1894	25
1895	37
1896	44

Of the 44 registrations during 1896, 9 were registered under Act 60 Vic. No. 15, passed in October, 1896, which repealed the former Act (44 Vic. No. 23).

TOTAL DEPOSITS IN BANKS AND INVESTMENT COMPANIES.

The amount of deposits at the end of each of the last ten years in the Banks of Issue, the Savings Banks, and the Building and Investment Companies is given in the subjoined table. The increase during the first four years was rapid, not only absolutely, but also as compared with the increase in population; but in the course of the last four years the amount per head has fallen considerably. During the period of ten years embraced in the table the deposits increased from £34,878,769 to £39,693,955, the rate per head being £30 11s. 10d. in 1896 as compared with £34 3s. 8d. in 1887. The amount under each head on 31st December of each year was as follows :—

Year.	Deposits.				
	In Banks of Issue.	In Savings Banks.	In Building and Investment Companies.	Total.	Amount per head of Population.
	£	£	£	£	£ s. d.
1887	29,253,864	3,675,893	1,949,012	34,878,769	34 3 8
1888	31,917,311	4,037,675	2,442,065	38,397,051	36 10 7
1889	33,777,142	4,280,083	2,599,272	40,656,497	37 11 5
1890	35,460,118	4,730,469	3,199,554	43,390,141	38 13 6
1891	35,659,690	5,342,135	2,595,489	43,597,314	37 8 3
1892	35,564,192	5,706,081	2,082,223	43,352,496	36 4 0
1893	32,141,959	6,535,758	1,516,567	40,194,284	32 17 1
1894	29,792,793	7,217,000	1,836,540	38,846,333	31 0 10
1895	30,629,257	8,073,575	1,289,016	39,991,848	31 5 11
1896	29,835,916	8,522,623	1,335,416	39,693,955	30 11 10

In the £1,335,416 deposits held by companies in 1896 is included £424,292 deposited in Benefit Building and Investment Societies registered under the Friendly Societies' Act. Similar information for years prior to 1894 is not available.

TRADE MARKS.

The Trade Marks Act of 1865 provides for the registration of trade marks and for the prevention of the fraudulent marking of merchandise. During the thirty-two years the Act has been in force, 6,102 trade marks, or an average of 191 per annum, have been registered, the average of the last few years being considerably in excess of that for the whole period. The more careful discrimination now exercised with regard to the designs submitted has had the effect of bringing the Act into greater favour. The registration of a trade mark does not confer any patent rights, but acts as a commercial safeguard and as an encouragement to manufacturers to produce goods of a superior quality.

The goods or manufactures which may be protected by trade marks are classified for the purposes of efficient registration into fifty main divisions; the fees, however, are the same for each class. The transactions under the Act and the fees received during each of the five years ended 1896 were as follow :—

Transactions.	1892.	1893.	1894.	1895.	1896.
Applications for trade marks.........	365	394	546	516	475
New trade marks granted	327	304	381	397	355
Trade marks transferred	19	63	94	52	26
,, refused and withdrawn	19	27	66	61	37
Amount of fees received ....£	1,103	1,071	1,430	1,450	1,389

The figures given do not wholly apply to registrations of local manufacturers, as trade marks, like patents, are unprotected in the colony if not registered locally. The registration fees are a source of income to the State, as an application for registration costs three guineas, and a transfer of a trade mark one guinea; no charges are, however, made for applications withdrawn or refused. The fees collected during 1896 amounted to £1,389, or £490 more than those received for registrations under the Companies Act.

MONEY ORDERS AND POSTAL NOTES.

The money order and postal note systems are worked in conjunction with the Post Office Savings Bank, the three constituting one of the sub-departments administered by the Postmaster-General. Under the money order system money may be transmitted from any part of South Wales where an office is open to any part of the civilised w The orders are sent either direct to the place of payment or thr intermediary agencies, all places within New South Wales or neighbouring colonies being dealt with direct, while to places ou Australia the intermediary system is applied. Under the postal system exchanges are effected between this colony and Vict Queensland, South Australia, and Tasmania; but its original object to afford means of transmitting amounts of £1 and under to p within the colony. As regards small remittances within the col the money order and postal note systems cover somewhat the ground; but as the convenience both of sender and receiver is in fa of the postal note, it is anticipated that the money order system be almost entirely confined to business of more than £1.

The money order system was adopted in January, 1863. In year there were 3 orders issued for every 100 persons in the col and the total value of the orders was £53,862; while in 1896 number had risen to 31 per 100 inhabitants, and the total valu £1,313,595. The growth of the business has been mainly due to extension of the sphere of operations, both locally and elsewhere, to the greater appreciation of the system, especially by the wage-ear class of the community. Appended is a statement of the busi transacted in 1896:—

Issued in New South Wales.			Drawn on New South Wales.		
Drawn on—	Number	Value.	Issued and paid in—	Number	Val
Australasia—		£	Australasia—		£
New South Wales (Inland)..	302,773	1,019,556	New South Wales (Inland)	301,817	1,014,
Victoria	30,568	94,183	Victoria	16,623	56,
Queensland	7,121	25,816	Queensland	18,129	63,
South Australia	9,768	30,006	South Australia	4,692	15,
Western Australia	2,734	19,417	Western Australia	35,308	176,
Tasmania	17,547	23,367	Tasmania	3,560	9,
New Zealand	4,196	12,534	New Zealand	10,576	28,
United Kingdom and Europe	22,393	63,834	United Kingdom and Europe	12,941	40,
Germany (direct)	1,038	3,078	Germany (direct)	275	1,
Italy (direct)	363	2,293	Italy (direct)	12	
Canada	157	777	Canada	208	1,
United States	1,787	5,165	United States	1,019	4,
India	1,069	8,012	India	230	
Ceylon	138	632	Ceylon	59	
Straits Settlements	6	20	Straits Settlements	46	
Hong Kong	854	4,161	Hong Kong	67	
Cape of Good Hope	127	661	Cape of Good Hope	2,129	10,
Mauritius	38	83	Mauritius	25	
Total issued	402,677	1,313,595	Total drawn	407,716	1,4

The following table covers a period of ten years, and distinguis orders drawn on New South Wales from those drawn on other countr It will be seen that the amount of money transmitted to countries side New South Wales exceeded the money received in every xcept 1895 and 1896. In the months of August, September, and ctober large numbers of shearers are at work in various parts of the olony; many of them are but temporary visitors, whose homes are in ictoria and other adjoining colonies, and during their stay in New outh Wales they transmit a portion of their earnings to their families, o that the balance of exchanges, so far as Victoria is concerned, is abitually against New South Wales. There is also a considerable emittance from the colony to Great Britain and Ireland, representing id sent to relatives. On the other hand, bread-winners belonging o New South Wales, but now seeking their fortune elsewhere, make emittances to their families who have remained behind; the principal emittances of this kind are received from Western Australia, Queensand, and the Cape of Good Hope:—

Year.	Issued in New South Wales.			Drawn on New South Wales.		
	Drawn on New South Wales.	Drawn on other Countries.	Total.	Issued and paid in New South Wales.	Issued in other Countries and paid in N.S.W.	Total.
	£	£	£	£	£	£
1887	842,033	289,851	1,131,884	841,539	168,758	1,010,297
1888	903,797	311,335	1,215,132	901,620	214,813	1,116,433
1889	890,501	297,726	1,188,227	890,513	217,585	1,108,098
1890	955,244	297,061	1,252,305	954,562	239,392	1,193,954
1891	1,236,425	341,319	1,577,744	1,233,191	285,796	1,518,987
1892	1,436,300	326,413	1,762,713	1,436,109	303,703	1,739,812
1893	1,266,691	349,194	1,615,885	1,269,889	286,349	1,556,238
1894	1,017,003	298,634	1,315,637	1,016,570	241,352	1,257,922
1895	985,771	283,429	1,269,200	984,509	262,726	1,247,235
1896	1,019,556	294,039	1,313,595	1,014,040	413,480	1,427,520

The system of postal notes has naturally caused a reduction of oney-order business, but when full allowance is made on this score it ill be found that there has been a considerable falling off in the umber and amount of transactions since 1892; the same shrinkage is isible in almost every form of mercantile activity.

It is the practice of New South Wales to pay a commission to those untries to which money is transmitted in proportion to the amount of e orders forwarded to each, the rate of commission varying from ½ to 1 er cent., and a similar allowance is made to the colony by countries doing a return business. The amounts paid and received by the co on this account during the last seven years were as follow :—

Year.	Paid.	Received.
	£	£
1890	2,759	2,644
1891	3,171	3,464
1892	2,392	2,066
1893	2,214	1,688
1894	1,890	1,445
1895	1,771	1,537
1896	1,812	2,326

Money orders drawn on places within Australasia are limited to the commission ranging from 6d. to 2s. for local orders, and from to 4s. for orders on the other colonies. On Canada, Ceylon, Ir Germany, Italy, and the United States, the maximum sum for w an order may be obtained is also £20, and the charges vary from to 10s.; while on all other countries the limit is fixed at £10, the commission at from 6d. to 5s. The total amount of commis collected from the public for each of the seven years from 1890 to 1 is given below, and against this amount is placed the excess of paym over receipts shown in the preceding table :—

Year.	Commission received.	Net Payments to Other Countries.	Net Collections.
	£	£	£
1890	16,939	115	16,824
1891	19,198	*293	19,491
1892	19,309	326	18,983
1893	19,038	526	18,512
1894	15,828	445	15,383
1895	14,863	234	14,629
1896	15,232	*514	15,746

* Net receipts from other countries.

No allowance has been made for the stamp duty of 1d. charged all orders issued in New South Wales, and of 2d. imposed on all or of £2 and upwards paid in the colony.

Postal notes were first issued in New South Wales on the 1st October, 1893, under the authority of a special Act of the Legislature. The transactions during 1896 were as follow :—

Denomination.	Issued in New South Wales.		
	Drawn on—		Total.
	New South Wales (Inland).	Other Colonies.	
	£ s. d.	£ s. d.	£ s. d.
1s. to 4s. 6d. inclusive	47,587 15 0	20,411 13 0	324,646 4 4
5s. to 10s. ,, ...	124,246 2 6		
10s. 6d. to 15s. ,, ...	41,296 10 0		
20s.	88,118 0 0		
Stamps affixed	2,986 3 10		
Total ....£	304,234 11 4	20,411 13 0	324,646 4 4

Denomination.	Drawn on New South Wales.				
	Issued in—				Total.
	Victoria.	Queensland.	South Australia.	Tasmania.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1s. to 4s. 6d. inclusive	1,121 18 0	977 7 6	297 19 6	105 10 0	2,502 15 0
5s. to 10s. ,, ...	2,380 10 0	1,740 10 0	559 15 0	156 17 6	4,837 12 6
10s. 6d. to 15s. ,, ...	829 14 6	568 14 6	237 4 6	46 11 6	1,682 5 0
20s.	4,102 0 0	2,336 0 0	547 0 0	190 0 0	7,175 0 0
Stamps affixed	64 16 10	66 2 1	27 17 4	7 2 9	165 19 0
Total ....£	8,498 19 4	5,688 14 1	1,669 16 4	506 1 9	16,363 11 6

No commission is paid by one colony to another in respect of notes obtained for intercolonial use, but poundage is charged both by the colony in which a note is issued and by that in which it is cashed. The poundage collected in New South Wales during the last quarter of 1893 was £549 ; during the year 1894, £3,878 ; during 1895, £6,317 ; and during 1896, £7,839. The notes range in value from 1s. to 20s., and the poundage payable thereon varies from 1d. to 4d., according to the following scale :—

Value of note.	Poundage.	Value of note.	Poundage.
s. d.	d.	s. d.	d.
1 0	1	5 0	2
1 6	1	7 6	2
2 0	1	10 0	3
2 6	1	15 0	3
3 0	1	20 0	4
4 0	1		

INSURANCE.

There are no Acts of the New South Wales Parliament regulating the business of fire, life, and other forms of insurance, and local companies engaged in the business are either incorporated under special Acts or under the Companies Act. As the law does not require the publication of returns of the business transacted within the colony, is not customary for companies to disclose this information. The onl figures available, therefore, are those relating to their whole busines but the cases are few in which a statement of the whole business of company throws light on its operations in New South Wales. T inconvenience arising out of the state of the law in regard to insuran has been the subject of complaint by all companies seeking to transa business on sound lines, especially those companies engaged in li insurance. No deposit or other guarantee of genuineness is require and it is open to any one to start a life office, the business transact being only limited by the extent to which the credulity of the publ may be abused. The evils in regard to fire companies are not so gre as for life companies, as the risks taken are almost invariably for shor periods ; but they are sufficiently great to call for speedy remedy.

There were seventy-six companies, including the two Underwrite Associations, operating in the colony during 1896 ; of these, only eleve were local institutions. The number doing each class of business wa as follows :—

Class of Business.	Head Office.				Paid up Capital.
	In New South Wales.	In other Australasian Colonies.	Outside Australasia.	Total.	
					£
Life only	4	6	3	13	....
Fire only	2	....	8	10	1,47
Marine only	....	2	18	20	2,157,
Fire and Life	....	....	10	10	3,90
Fire and Marine	2	7	2	11	737,
Fire and Guarantee	1	....	....	1	18,7
Fire and Accident	....	....	1	1	272,
Fire, Life, and Marine	....	....	3	3	1,3
Fire, Marine, and Guarantee	....	1	....	1	75,0
Fire, Life, Marine, and Guarantee	....	1	....	1	125,0
Fire, Marine, Accident, Guarantee, and Plate Glass	....	2	....	2	69,
Fire, Marine, Guarantee, Plate Glass, and Employers' Liability	....	1	....	1	15,5
Underwriters' Associations	2	....	....	2	....

The life assurance effected by the "Fire and Life" offices forms very small proportion of their total business.

FIRE INSURANCE.

The amount of the net risks held in the metropolitan area is obtainab under the 15th clause of the Fire Brigades Act of 1884, which requir each company holding risks within the proclaimed area under the Fi Brigades Board to furnish annually to the Board the amount held risk on the preceding 31st December within that area, less the su re-insured with other contributory companies under the Act. Th information, however, is for assessment purposes only, the compani being obliged to contribute one-third of the total annual expenditure of the Board, the sum subscribed by each being proportionate to the amount of net risks held within the said area. The total amount contributed by the companies towards the expenses of the Board during 1896 was £6,300. The net risk in the metropolitan area held by each company on the 31st December, 1896, was as follows :—

Name of Company.	Net amount at risk on 31st Dec., 1896.	Name of Company.	Net amount at risk on 31st Dec., 1896.
	£		£
Alliance Assurance Company	1,761,166	Netherlands India Sea and Fire Insurance Co.	135,000
Atlas Assurance Company	404,897	New Zealand Insurance Co.	1,996,756
Australian Alliance Assurance Co	438,844	North British and Mercantile Insurance Co.	1,029,993
Australian Mutual Fire Insurance Co.	8,177,013	North Queensland Insurance Co. (Ltd.)	719,728
Batavia Sea and Fire Insurance Co.	266,740	Northern Assurance Company	711,745
Caledonian Insurance Co.	432,267	Norwich Union Fire Insurance Society	2,171,909
City Mutual Fire Insurance Co. (Ltd.)	3,089,340	Palatine Insurance Company (Ltd.)	520,684
Colonial Mutual Fire Insurance Co. (Ltd.)	970,641	Phœnix Assurance Co. of London	1,062,731
ommercial Union Assurance Co. (Ltd.)	6,179,411	Queensland Mutual Insurance Co. (Ltd.)	244,228
Cornwall Fire and Marine Insurance Co. (Ltd.)	256,748	Royal Insurance Co.	2,097,413
Derwent and Tamar Fire and Marine Insurance Co.	280,862	Royal Exchange Assurance Corporation	313,061
Guardian Fire and Life Assurance Co. (Ltd.)	549,982	Scottish Union and National Insurance Co.	450,416
mperial Insurance Company of London (Ltd)	1,389,032	South British Fire and Marine Insurance Co. of N.Z.	1,560,863
ndemnity Fire and Marine Insurance Company of Australia (Ltd.)	135,429	Standard Fire and Marine Insurance Co. of N.Z.	787,553
Lancashire Insurance Co.	223,255	Sun Insurance Office of London	1,077,405
Lion Fire Insurance Co. (Ltd.)	269,164	United Insurance Co. (Ltd.)	4,144,625
Liverpool and London and Globe Insurance Co.	2,462,800	United Australian Mutual Fire Insurance Co. (Ltd.)	350,020
London and Lancashire Fire Insurance Co.	1,150,435	Victoria Insurance Co. (Ltd.)	1,580,200
London Assurance Corporation	293,613	Fire Underwriters' Association of N.S.W. for Offices outside the Colony	200,260
Manchester Fire Assurance Co.	381,695		
Mercantile Mutual Insurance Co.	8,495,722	Total.................£	59,907,953
National Fire and Marine Insurance Co. of N.Z.	1,143,689		

In cases where insurances cannot be effected in New South Wales here is an arrangement with the Fire Underwriters' Association by which the proportionate amount of the assessment due to the Fire Brigades Board is paid by the insured.

The declared amount of risks held in the metropolitan district since he Fire Brigades Act came into force was as undernoted. The figures efer to the 31st December in each year :—

1884	£36,691,000	1891	£58,415,945
1885	41,631,582	1892	61,185,715
1886	46,253,370	1893	59,844,701
1887	49,209,395	1894	59,340,096
1888	53,583,000	1895	59,720,282
1889	57,148,388	1896	59,907,953
1890	58,207,183		

The number of fires which occurred in the metropolitan district during the year 1896 was 291, which may be classified as follows, according to the damage done :—

Slight damage	230
Serious damage	27
Total destruction	34
Total	291

Besides these, there were 69 chimney fires, and 91 false alarms. One casualty which resulted fatally occurred during the year.

Of the premises totally destroyed, 26 were insured, and 8 not insured. Of those in which serious damage was effected, 24 were insured, and 3 not insured; while of those coming under the head of slightly damaged, 114 were insured, 103 not insured, and in 13 instances the insurance was unknown; so that it would appear the total number of insurances was 164, as against 114 non-insurances or 41 per cent. of the whole number for which information is available. The percentage just given must be taken with qualification, as the premises and the property therein contained frequently belong to different persons, and in order to gauge the extent to which insurance is practised it would be necessary to ascertain in how many instances the double insurance was effected. In the returns above given a property is considered insured if the premises be covered and the contents uninsured, and the converse is also the case.

The following is a statement of the fires which occurred in the metropolitan area during the past ten years :—

Year.	Slight damage.	Serious damage.	Total destruction.	Total fires.
1887	174	18	15	207
1888	222	19	25	266
1889	179	17	29	225
1890	205	12	18	235
1891	216	27	19	262
1892	270	21	23	314
1893	210	23	25	258
1894	206	23	41	270
1895	299	20	48	367
1896	230	27	34	291

Under clause 20 of the Fire Brigades Act authority is given to extend its provisions to the country districts; but owing to an ambiguous clause in the statute the fire insurance companies do not consider themselves called upon to contribute anything towards the maintenance of the country Boards, hence many of the municipalities have not taken any steps to come under the Act further than being gazetted. The country districts are served by volunteer fire companies, a return of which will be found in the subjoined table. Full particulars, similar to those given for the metropolitan district, cannot be obtained, and until the Act is made operative outside Sydney and suburbs correct returns will not be available.

total number of firemen attached to the brigades in the metro- and country districts, and the number of fires attended, were as below, the figures for the metropolis and the country, with the ion of Narrandera, relating to the year 1896 :—

ame of Station.	Number of—		Name of Station.	Number of—	
	Actual fires attended.	Men in the Brigades.		Actual fires attended.	Men in the Brigades.
olitan Fire			Country Companies—*ctd.*		
igade—			Carrington	1	20
, Head-quarters	291	28	Cootamundra	4	18
, George-st. West		10	Deniliquin	6	16
, George-st. North		9	Forbes	5	16
, Darlinghurst		4	Goulburn (2 stations)	1	23
, Newtown		4	Glen Innes	...	16
, North City		3	Grafton	...	32
7, Marrickville		4	Grafton, South	1	13
liary Firemen		14	Hamilton	2	12
olitan Volunteer			Hay	2	17
mpanies—			Junee	3	23
andria	24	15	Kempsey	1	20
ield	22	10	Lambton	2	18
ain	20	19	Lambton, New	...	12
ood	17	13	Lismore	5	16
amoyne	4	12	Maitland, East	...	12
e	20	15	Maitland, West	1	21
ville	3	13	Merewether	1	15
rah	4	11	Minmi	3	26
hardt	17	11	Moama	5	8
ly	1	16	Moss Vale	3	20
h Botany	15	14	*Narrandera	1	15
lington	26	14	Newcastle, Central	14	19
lington Brewery	74	17	Newcastle, West	23	28
amatta No. 1	6	16	Nowra	1	16
amatta No. 2	5	18	Orange	3	14
dale	7	15	Parkes	3	15
kwood	2	14	Queanbeyan	...	21
dard Brewery	70	...	Richmond	2	15
ey Meat Preserv-			Singleton	...	30
g Co., Auburn	2	19	Stockton	4	30
erloo	22	15	Tamworth	2	15
erley	28	12	Taree	...	34
llahra	32	16	Tenterfield	...	18
y Companies—			Tighe's Hill	6	15
mstown	4	14	Wagga Wagga	...	15
ry	3	25	Wallsend & Plattsburg	3	25
idale	3	16	Waratah	2	16
urst	7	16	Wentworth	...	10
rke	6	10	Wickham	3	21
ral	4	21	Wollongong	4	26
ken Hill (2 stations)	58	20			

* No returns received; figures are for year 1895.

LIFE ASSURANCE.

Life assurance, in common with other forms of financial business, received a severe blow during the crisis of 1893, from the effects of which it is only now recovering. Prior to the year named all forms of life business showed great expansion; during 1894 and 1895 this gave place to a struggle to maintain the position already acquired; but in 1896 a decided improvement in business was experienced. The falling off after the financial crisis was not to be wondered at. The sudden stoppage of credit by the locking-up of deposits in banks drove many of the policy-holders to borrow on the security of their policies, and borrowing was too frequently the first step towards the surrender of the policy on the security of which the advance was made. The business of the last half of 1893 and of the whole of 1894 was in every respect abnormal; for it will be seen from the comparative tables given below that, taking the whole of the companies together, the surrenders and forfeitures actually exceeded the new business obtained. In dealing with the contraction in insurance business, it should be borne in mind that a good many of the old policies are now falling in, and at the same time the field from which new policies are obtained is sensibly narrowing, as the Australian colonies have been thoroughly exploited for many years, while the insurable element of four and a half million people cannot be said to be large. Of late years, however, sundry new forms of insurance have been adopted, and the companies hope in this way to more readily attract the public now that a revival seems to have set in.

Special laws regulating the business of life assurance are in existence in every colony except New South Wales; but they are by no means uniform, no two colonies having precisely the same law. During 1862 an Act was passed in New South Wales to encourage and protect life insurance, but its provisions in no way apply to the regulation of business.

On account of the absence of official returns, the particulars relating to the institutions are obtained from the reports published and circulated by the companies themselves; but, unfortunately, such statements do not allow of the business transacted locally being separated from that done elsewhere. During 1896 there were thirteen institutions operating in the colony. Of these, four were local, six had their head offices in Victoria, and three in the United States. The volume of the local business of those last mentioned proportionately to the total is, however, so small that returns relating to the American offices have been omitted from the following comparisons, except where their local business can be stated. Early in 1897 two of the Victorian Institutions amalgamated. Fourteen companies, uniting life with other classes of insurance, have local branches or agencies, but with one exception their transactions in life risks in the colony are unimportant.

Of the four local institutions, the Australian Mutual Provident Society and the Mutual Life Association of Australasia were incorporated under special Acts; and the City Mutual Life Assurance Society (Limited) and the Citizens' Life Assurance Company (Limited) were registered under the Companies Act, the former in 1878, and the latter in 1886. The six remaining institutions were incorporated in Victoria.

The results of the latest published actuarial investigations of the various societies were as follow :—

Institution.	Year when established.	Periods of Valuation.	Date.	Net or present Liability.	Surplus.
Head Office in New South Wales—				£	£
Australian Mutual Provident Society	1849	Annual......	31 Dec., 1896	13,211,261	512,817
Mutual Life Association of Australasia.	1869	Triennial....	31 Dec., 1894	963,477	85,508
City Mutual Life Assurance Society (Limited).	1879	,, ...	31 Dec., 1894	108,128	9,901
Citizens' Life Assurance Company (Limited).	1886	Annual......	31 Dec., 1896	95,845	14,666
Head Office in Victoria—					
Australian Alliance Assurance Company.	1862	Triennial....	31 Dec., 1894	279,915	18,874
National Mutual Life Association of Australasia.	1869	,, ...	30 Sept., 1895	1,390,529	160,695
*Mutual Assurance Society of Victoria (Limited).	1870	Quinquennial	31 Dec., 1895	795,170	70,702
Australian Widows' Fund Life Assurance Society (Limited).	1871	,, ..	31 Oct., 1896	1,166,499	156,662
Colonial Mutual Life Assurance Society (Limited).	1874	,, ..	31 Dec., 1894	1,567,431	226,198
Australian Temperance and General Mutual Life Assurance Society.	1876	,, ..	30 Sept., 1895	165,427	2,219

* Amalgamated with the National Mutual Life Association from 1st January, 1897.

The net or present liability represents the present value of the sums assured in respect of whole life and endowment assurance, reversionary bonuses, endowments, and annuities in force at date of valuations, less the present value of the future pure premiums thereon. The surplus given represents the amount available for distribution amongst policy-holders, and actuarial and commercial reserves.

Eight of the companies are mutual, and the remainder are what is termed in insurance parlance "mixed"—that is, proprietary companies dividing profits with the policy-holders; while two of the institutions also transact industrial business, and one company, the Australian Alliance Assurance Company, conducts fire and marine insurance. The returns for each society, however, apply only to the ordinary life business. Most of the offices have representatives in all the seven colonies, and one institution—the Colonial Mutual—has extended its operations to London and South Africa.

The following table gives the policies in force and the sums assured in each society at the close of 1896; the item "Sums assured" means the sums payable, exclusive of reversionary bonuses, at death, or attaining a certain age or at death before that age :—

Institution.	Policies in force, exclusive of Annuities.	Sums Assured, exclusive of Bonuses and Annuities.	Bonus Additions.	Total, inclusive of Bonuses.	Annual Premi Incom
	No.	£	£	£	£
Australian Mutual Provident Society	128,650	40,731,231	7,892,672	48,623,903	1,332,1
Mutual Life Association of Australasia	16,877	4,445,575	266,271	4,711,846	142,4
City Mutual Life Assurance Society.........	6,136	892,850	14,793	907,643	22,4
Citizens' Life Assurance Company...........	12,554	1,465,772	33,113	1,498,885	52,4
Australian Alliance Assurance Company ..	1,615	558,830	46,692	605,522	20,1
National Mutual Life Association	29,142	6,557,028	542,337	7,099,365	214,1
Mutual Assurance Society of Victoria	13,921	3,152,112	164,866	3,316,978	107,1
Australian Widows' Fund....................	20,062	4,422,260	184,126	4,606,386	166,7
Colonial Mutual Life Assurance Society	32,261	10,351,235	317,270	10,668,505	223,1
Australasian Temperance and General Life Assurance Society	5,869	922,898	13,067	935,965	34,3
*Equitable Life Assurance Society of the United States	7,882	....	....	3,950,166	131,6
*Mutual Life Assurance Company of New York	2,212	....	....	1,403,785	60,7
*New York Life Insurance Company	2,932	....	....	1,733,773	97,3

* Australasian business only.

The following table shows the business in force at the close of th year immediately preceding that of the crisis, the year following th crisis, and at the close of 1896. As was to be expected, the volume o assurances decreased in nearly every society from 1892 to 1894, and th results as disclosed by the figures afford another striking instance of th widespread distress following the events of 1893. During 1896, however, most of the societies exhibited a considerable improvement in their business.

Institution.	Amount Assured, excluding Bonuses and Annuities.		
	1892.	1894.	189
	£	£	£
Australian Mutual Provident Society	38,888,283	39,510,130	40,731,23
Mutual Life Association of Australasia......	4,430,669	4,166,359	4,445,5
City Mutual Life Assurance Society (Ltd.).	719,999	776,946	892,8
Citizens' Life Assurance Company (Ltd.)...	429,084	845,984	1,465,77
Australian Alliance Assurance Company ...	769,987	645,463	558,8
National Mutual Life Association of Victoria (Ltd.).	6,479,001	6,338,659	6,557,0
Mutual Assurance Society of Victoria (Ltd.)	3,665,517	3,332,312	3,152,11
Australian Widows' Fund Life Assurance Society (Ltd.).	4,939,075	4,555,968	4,422,2
Colonial Mutual Life Assurance Society (Ltd.).	10,827,028	10,533,271	10,351,2
Australasian Temperance and General Mutual Life Assurance Society (Ltd.)...	827,566	812,370	922,8
* Equitable Life Assurance Society of the United States..............................	4,335,522	4,211,667	3,950,16
* Mutual Life Assurance Company of New York........	1,107,258	1,253,462	1,403,78
* New York Life Insurance Company	1,883,765	1,665,068	1,733,77

* Australasian business only, including Bonuses.

The following table gives a summary of the new business completed during the past eight years by the ten Australian offices represented in New South Wales. The assurance and endowment policies only are dealt with, as the annuity transactions are unimportant:—

Year.	Policies.	Amount Assured.		Annual Premiums.			
		Total.	Per Policy.	Total.	Per £100 o Assurance.		
	No.	£	£	£	£	s.	d.
1889	27,553	7,905,449	287	252,736	3	3	11
1890	28,840	8,420,670	292	274,614	3	5	3
1891	28,032	8,435,673	301	273,061	3	4	9
1892	27,965	7,977,154	285	262,647	3	5	10
1893	24,488	6,019,408	246	197,086	3	5	6
1894	25,721	6,062,494	236	202,315	3	6	9
1895	27,098	6,384,455	236	215,013	3	7	4
1896	29,611	6,895,567	233	230,896	3	7	0

It will be noticed that the average sum assured fell to £233 in 1896, while the annual premium for £100 is larger than for any of the other years shown with the exception of 1895. It would seem from these two facts that the depression of the past five years has had the effect of curtailing the insuring powers of the people; while the proportionate increase in the premium is accounted for by the growth of the endowment assurance business. At the present time 39 per cent. of the total assurance business is of this description, and it is evident that the combination of investment with insurance thus afforded has obtained a strong hold on the assuring public. The average sum assured per endowment policy is below that of the whole life policies, while the average annual premium is higher, as many of the policies are for short terms. The new assurances effected during the year, less the void business or discontinuances, represent the annual additions to the sums assured; this, or its opposite, is shown in the following comparison for the six years ended 1896:—

Year.	New Assurances.	Void Business.	Net yearly increase to sums assured.
	£	£	£
1891	8,435,673	5,096,730	3,338,943
1892	7,977,154	6,099,772	1,877,382
1893	6,019,408	6,218,360	*198,952
1894	6,062,494	6,305,437	*242,943
1895	6,384,455	5,796,308	588,147
1896	6,895,567	5,501,385	1,394,182

* Decrease.

The receipts of the societies are chiefly represented by the collections from premiums on policies and the interest arising from investments of the accumulated funds; while payments on account of policies matured and surrendered, cash bonuses, and expenses of management chiefly comprise the disbursements. The receipts and disbursements of each society during 1896 were as follow :—

Institution.	Receipts.	Expenditure.	Excess Receipts (Addition to Funds).
	£	£	£
Australian Mutual Provident Society	2,029,674	1,463,747	565,927
Mutual Life Association of Australasia	197,722	149,729	47,993
City Mutual Life Assurance Society (Ltd.)	38,590	23,065	15,525
Citizens' Life Assurance Company (Ltd.).........	55,483	24,423	31,060
Australian Alliance Assurance Company	31,834	34,669	*2,835
National Mutual Life Association of Australasia	292,928	190,760	102,168
Mutual Assurance Society of Victoria (Ltd.) ...	153,940	118,734	35,206
Australian Widows' Fund Life Assurance Society (Ltd.)...	213,879	145,487	68,392
Colonial Mutual Life Assurance Society (Ltd.)...	392,705	275,569	117,136
Australian Temperance and General Mutual Life Assurance Society (Ltd.)..................	39,707	24,234	15,473
Total..............................	3,446,462	2,450,417	996,045

* Denotes decrease.

The aggregate receipts and disbursements, under the accepted heads, for the ten institutions were as follow :—

Receipts.		Expenditure.	
	£		£
Premiums—		Claims	1,238,87
New	215,733	Surrenders	568,53
Renewal	2,139,563	Annuities	25,92
Consideration for Annuities..	45,142	Cash Bonuses and Dividends	88,40
Interest	1,038,993	Expenses	457,42
Other Receipts (Rents, etc.)..	7,031	Amount written off to Depreciation, Reserves, etc. ...	71,98
Total.................... £	3,446,462	Total......................£	2,450,417

In 1894, for the first time for many years, the amount of interest earned and rents received was insufficient to meet the demands under the head of claims; the excess to be made good from the other sources, however, was small. In 1895 and 1896 the same conditions prevailed.

The yearly additions to the accumulated funds are largely dependent on the volume of assurances current, and any changes in the one are reflected in the figures of the other; it is, therefore, not surprising that coincident with the shrinkages in the volume of assurances in force up to the year 1894, the amount added to the accumulated funds had correspondingly fallen off. During the years 1895 and 1896, however, the additions to the funds have shown a considerable increase. The

ount of funds and the interest received thereon, for the seven years
ded with 1896, were as follow :—

Year.	Accumulated Funds.		Interest.	
	Additions during year.	Total Amount.	Amount received.	Average Rate realised.
	£	£	£	per cent.
1890	1,404,215	14,580,210	827,909	5·97
1891	1,380,553	15,960,763	902,774	5·91
1892	1,360,100	17,320,863	967,678	5·81
1893	1,147,143	18,468,006	991,369	5·54
1894	912,276	19,380,282	1,041,529	5·50
1895	1,057,942	20,438,224	1,037,477	5·21
1896	996,045	21,434,269	1,038,993	4·96

Assets and Liabilities of Assurance Companies.

The societies establish annually a statement of their liabilities and
sets, with the object of showing the distribution of the accumulated
nds and the amount placed to commercial reserve. The returns are,
wever, in no way connected with the valuation balance-sheets pre-
red at the date of the actuarial investigation. The assets and liabili-
s for each institution, for the financial year of 1896, are shown in
e subjoined table :—

Institution.	Assets.			Liabilities.		
	Loans on Mortgages and Policies.	Government and Municipal Securities, Freehold Property, Cash on Deposit, etc., etc.	Total.	Assurance Endowment and Annuity Funds.	Paid-up Capital Reserve Funds, etc., etc.	Total.
	£	£	£	£	£	£
tralian Mutual Provident Society	11,335,415	2,823,202	14,158,617	13,728,540	430,077	14,158,617
tual Life Association of Australasia	741,457	406,074	1,147,531	1,135,760	11,771	1,147,531
Mutual Life Assurance Society (Ltd.)	86,882	59,131	146,013	144,999	1,014	146,013
zens' Life Assurance Company (Ltd.)	79,602	33,091	112,693	110,511	2,182	112,693
stralian Alliance Assurance Company	310,976	256,058	567,034	280,328	286,706	567,034
ional Mutual Life Association of Australasia	1,084,902	604,652	1,689,554	1,592,391	97,163	1,689,554
tual Assurance Society of Victoria (Ltd.)	575,073	334,981	910,054	878,556	31,498	910,054
stralian Widows' Fund Life Assurance Society (Ltd.)	1,112,063	216,885	1,328,948	1,319,658	9,290	1,328,948
onial Mutual Life Assurance Society (Ltd.)	1,132,947	914,438	2,047,385	1,993,108	54,277	2,047,385
stralian Temperance and General Mutual Life Assurance Society (Ltd.)	138,062	88,155	226,217	215,984	10,233	226,217
Total	16,597,379	5,736,667	22,334,046	21,399,835	934,211	22,334,046

* Including Fire and Guarantee Branches. † Including Industrial Branch.

About three-fourths of the total assets are represented by loa
mortgage; indeed, in these colonies insurance companies are a
restricted to this form of investment, and to loans on policies.
remaining items require no special comment, except loans on pe
security. Investments of this character are unusual in Austra
the amount invested aggregating only £81,024. In some of the co
the companies are obliged by law to deposit certain sums wit
Treasury as a guarantee of good faith, and the amount so lod
included either under the head of Government securities or of de

EXPENSES OF MANAGEMENT OF ASSURANCE COMPANIES.

The ratio of expenses of management to premium income and
receipts must necessarily vary according to the age of the societ
the proportion of new business transacted. The figures are giv
what they are worth. That a more exact comparison cannot be m
the fault of certain companies which fail to make a complete discl
of their affairs, and do not distribute their expenses of manageme
that the cost of new business may be distinguished from that o
business; the reports of other companies are unequalled in any p
the world:—

Institution.	Expenses of Management.		
	Amount.	Proportion to—	
		Premium Income.	Gr Rec
	£	per cent.	per
Australian Mutual Provident Society	182,882	13·92	[illegible]
Mutual Life Association of Australasia	41,912	29·62	[illegible]
City Mutual Life Assurance Society (Ltd.)	9,426	30·74	[illegible]
Citizens' Life Assurance Company (Ltd.)	8,322	16·34	[illegible]
Australian Alliance Assurance Company	4,065	19·54	[illegible]
National Mutual Life Association of Australasia	52,912	24·75	[illegible]
Mutual Assurance Society of Victoria (Ltd.)	31,975	29·64	[illegible]
Australian Widows' Fund Life Assurance Society (Ltd.)	37,288	24·67	[illegible]
Colonial Mutual Life Assurance Society (Ltd.)	77,828	25·29	[illegible]
Australian Temperance and General Mutual Life Assurance Society (Ltd.)	10,812	33·04	[illegible]

ASSURANCE IN VARIOUS COUNTRIES.

The average amount assured per policy for each colony, and for
United Kingdom, Canada, and the United States, is given in the
lowing table. The Australasian business of the American institutio

excluded from the previous returns has been included for the purpose of establishing the Australian averages shown herewith :—

Country.	Average sum assured per Policy.	Average Premium per £100 of Assurance.		
	£	£	s.	d.
Australasia	288	3	7	4
New South Wales	333	3	6	8
Victoria	270	3	7	5
Queensland	330	3	1	10
South Australia	247	3	7	2
Western Australia	372	3	2	11
Tasmania	263	3	9	2
New Zealand	265	3	3	4
United Kingdom	397	3	7	6
United States (New York only)	538	....		
Canada	356	3	5	8

The average amount of assurance per head of population was, in Australasia, £21; in Canada, £11; in the United Kingdom, £13; and in the United States, £12; while the average number of policies per thousand of population was, in Australasia, 66; in Canada, 38; in the United Kingdom, 32; and in the United States, 23.

The average policy is scarcely a fair measure of thrift. In these colonies mutual assurance is the rule, and members of the various societies have acquired large bonus additions. The average existing policy, including reversionary bonus, of the Australasian companies during 1896, was £311, as compared with the £288 shown in the comparative table.

It would seem that the practice of assuring life is much more prevalent in Australasia than in any of the other countries instanced; and although the average sum assured by each policy is less, the number of policies is so much greater, as compared with the population, that the amount assured per inhabitant is considerably higher.

BANKRUPTCY.

The present Bankruptcy Act came into force in January, 1888, superseding a system which made insolvency a very easy matter. It was expected that the new Act would give a healthier tone to trade, and decrease the number of cases in which debtors would have recourse to law to be relieved of their engagements. The result anticipated, however, has in no wise been realised, and bankruptcies are now just as numerous as formerly. In the nine years during which the present law has been in force, 11,561 petitions in bankruptcy have been received; of these, 9,948 were filed by the bankrupts themselves, and 1,613 on be creditors. The petitions were not granted or were withdrawn cases, so that the total sequestrations actually made numbered 1 The following is a statement of the bankruptcy petitions fo of the nine years during which the present Bankruptcy Act ha in force :—

Year.	Petitions in Bankruptcy.			Petitions withdrawn, refused, etc.	Seque Or gra
	Voluntary.	Compulsory.	Total.		
	No.	No.	No.	No.	
1888	735	116	851	28	
1889	935	166	1,101	39	
1890	1,079	164	1,243	50	
1891	1,016	222	1,238	49	
1892	1,267	239	1,506	43	
1893	1,535	209	1,744	59	
1894	1,364	148	1,512	47	
1895	1,080	200	1,280	61	
1896	937	149	1,086	46	
Total...	9,948	1,613	11,561	422	1

A bankrupt may obtain his discharge in one of three ways— sequestration order made against him being annulled, by the rele his estate, or by a certificate of discharge being granted to him. bulk of the certificates issued are obtained under the last-mentioned only two sequestration orders have been annulled, and 80 estates been released since the existing Act has been in force, while certificates of discharge have been granted. The number of c cates issued from 1st January, 1888, to 31st December, 1896, w follows:—

Year.	Sequestration Orders annulled.	Estates released.	Certificates of Discharge granted.	Compositions accepted.	Tot Certifi issu
	No.	No.	No.	No.	N
1888	....	1	26	5	3
1889	....	14	114	7	13
1890	....	4	95	4	10
1891	....	3	309	....	31
1892	1	19	185	....	20
1893	....	6	152	2	16
1894	....	....	147	....	14
1895	....	12	142	....	15
1896	1	21	95	1	11
Total	2	80	1,265	19	1,36

The number of estates in respect of which certificates of discharge or
lease were granted was 1,366, or 12 per cent. of the total sequestrations.
some few cases application is made for a certificate and refused;
owing for these, it would appear that out of 100 bankrupts 88 are
able or too indifferent to take the necessary steps to free themselves
om bankruptcy. Under the law the property of an uncertificated
nkrupt, even if acquired subsequently to sequestration, is liable to
zure on behalf of unsatisfied creditors; and as applications for certifi-
tes of discharge are the exception rather than the rule, it would
pear that the great majority of bankrupts neither attain nor hope
attain a position in which they are likely to be disturbed by
satisfied creditors. Before a certificate is granted all fees owing to
e Court and official assignees must be paid, and it is certain that not
ew who elect to remain uncertificated do so in order to avoid payment
these fees. The number of sequestrations during the nine years
e Act has been in force was 11,139, and of these 9,773 remain uncer-
cated. During 1896 the total number of sequestrations was 1,040;
e liabilities, according to bankrupts' schedules, were £627,314; and
e assets amounted to £409,928. The qualification "according to
nkrupts' schedules" is necessary, as the returns of assets and liabilities
ablished after investigation by the Court differ widely from those
nished by bankrupts:—

Year.	Sequestrations.	Nominal—		
		Liabilities.	Assets.	Deficiency.
	No.	£	£	£
1888	823	659,307	459,677	199,630
1889	1,062	794,603	396,723	397,880
1890	1,193	1,203,685	540,726	662,959
1891	1,189	989,778	454,211	535,567
1892	1,463	2,035,316	793,045	1,242,271
1893	1,685	1,527,985	905,763	622,222
1894	1,465	1,852,235	995,935	856,300
1895	1,219	1,142,637	747,053	395,584
1896	1,040	627,314	409,928	217,386
Total	11,139	10,832,860	5,703,061	5,129,799

The dividend rates paid on the amount of proved liabilities of
ates which have been wound up are not given, as to establish such
uld involve an investigation of the transactions in each estate; and
n this operation would not result in complete returns being
ablished, as there are many estates which remain unsettled over a
g period of years. There are three official assignees to assist the
rt in winding up the estates. Each official pays all money received
im to the Registrar in Bankruptcy, who places the amount to the

credit of the Bankruptcy Estates Account, from which all ch fees, and dividends are met. The official assignees are also requi furnish quarterly statements of the transactions in each estate that period, and the figures given in the two statements followin obtained from these returns. The charges under each head were

Year.	Peremptory Charges.		Legal Costs.	Paid into Consolidated Revenue.		Commission to Official Assignees.	C
	Auction.	Rent, Valuation, Labour, etc.		Court Fees.	Percentage.		
	£	£	£	£	£	£	
1890	4,268	9,613	3,064	70	382	3,443	2
1891	3,019	18,439	6,202	1,508	726	5,386	3
1892	3,692	10,350	7,192	1,582	891	5,581	2
1893	3,952	13,743	7,133	1,473	652	5,691	3
1894	3,571	18,308	7,139	1,528	1,143	8,610	40
1895	2,780	16,752	8,519	1,414	718	6,182	3
1896	1,955	22,488	6,113	1,321	551	4,665	37

The official assignees receive 2½ per cent. on the amount realised a similar rate on the amount of dividends declared; in additic this the Judge may grant special remuneration. The dividends and the undivided balances at the end of each year were as follow:

Year.	Dividends Paid.	Money in hands of Official Assignees.		Balance of Bankruptcy Estates Account.
		Unpaid and unclaimed Balances.	Unpaid Dividends.	
	£	£	£	£
1890	26,289	1,987	287	22,037
1891	52,304	1,449	432	21,651
1892	45,084	1,145	591	20,284
1893	40,433	9,532	132	27,287
1894	70,381	863	305	30,985
1895	50,640	314	530	16,738
1896	31,557	9,610	747	23,553

On the 30th June, 1897, there remained to the credit of the Ba ruptcy Unclaimed Dividend Fund £6,787, and to the Bankrup Suitors Fund, to which account interest earned by the Unclai Dividend Fund is placed, the sum of £432.

District Registrars in Bankruptcy have been appointed throug the colony, and in most instances the positions are filled by P

Magistrates or other court officials. District Registrars have the same powers and jurisdiction as the Registrar in respect to examinations of bankrupts, and the technical business of the court.

The following table gives the callings of persons becoming bankrupt during 1896; no trade, however, is recorded which showed less than 10 bankrupts:—

Calling.	No.	Calling.	No.	Calling.	No.
Labourers	138	Bakers	15	Solicitors	12
Miners	107	Blacksmiths	14	Dairymen	11
Farmers	50	Butchers	14	Tailors	11
Hotel-keepers	47	Carters	14	Painters	10
No occupation	37	Graziers	11	Others (under 10 Sequestrations)	370
Carpenters	24	Produce Dealers	14		
Contractors	23	Builders	13		
Storekeepers	23	Grocers	13	Total	1,040
Agents	22	Boarding-house-keepers.	12		
Clerks	20	Bootmakers	12		

The foregoing pages deal with the commercial aspect of bankruptcy; ther information relating to legal procedure will be found in the hapter dealing with the transactions of the Law Courts.

TRANSACTIONS IN REAL ESTATE.

The Real Property Act came into force in 1862, dealings in real state before that year having been regulated by the Deeds Regisration Act of 1843. The Real Property Act completely revolutionised he procedure in regard to land transfers, and was modelled on the ines of legislation in South Australia adopted at the instance of Sir R. Torrens—hence the popular name of Torrens' Act. The chief eatures of the Act are the transferring of real property by registration f title instead of by deeds; the absolute indefeasibility of the title when egistered; and the protection afforded to owners against possessory laims, as a title issued under the Act stands good notwithstanding any ngth of adverse possession. From the passing of Torrens' Act all nds sold by the Crown were conveyed to the purchasers under its rovisions, and the provisions of the old law were restricted to transacons in respect of grants already issued. The area for which grants nder the old system had been issued in 1862 was 7,478,794 acres; nce then 1,226,062 acres have been brought under the provisions of orrens' Act, so that the area still under the Deeds Registration Act is

6,252,732 acres. Lands are allowed to be placed under Torrens' A only when their titles are found to be unchallengeable; but thousands acres are brought under the Act during the course of every year, so th it is merely a question of time when the whole of the lands of th colony will be under a uniform system. The area of Crown lan conveyed and of private lands brought under the Real Property A during the decade ended 1896 was as follows :—

Year.	Crown Lands conveyed under the Act.		Private Lands brought under the Real Property Act.		Total.	
	Area.	Value.	Area.	Value.	Area.	Value.
	acres.	£	acres.	£	acres.	£
1887	382,649	470,661	47,318	1,140,155	429,967	1,610,81
1888	318,875	421,058	62,085	1,840,008	380,960	2,261,06
1889	355,330	512,237	45,309	1,348,812	400,639	1,861,0
1890	194,953	336,369	79,675	1,068,348	274,628	1,404,717
1891	279,247	403,421	51,145	1,163,044	330,392	1,566,46
1892	189,990	301,165	83,627	1,243,890	273,617	1,545,05
1893	253,941	306,842	44,999	962,413	298,940	1,269,25
1894	267,730	485,006	45,756	808,234	313,486	1,293,2
1895	289,157	261,262	22,230	755,114	311,387	1,016,37
1896	320,474	226,440	53,717	861,811	374,191	1,088,2

For the whole period during which the Real Property Act (Torre has been in operation, 17,263,629 acres, valued at £19,614,645, ha been conveyed under its provisions, and 1,226,062 acres, valued a £20,462,872, have been brought under it, and deeds under the old A to the same extent cancelled.

The transfers and conveyances of private lands which take pla during ordinary years indicate in some measure the condition of busine the volume of these transactions, however, in some years cannot be reli upon as giving more than an indication of speculation or inflation. I the following table, which covers ten years, there is shown the conside tion money paid on sales of private lands during each year, excludi of course, lands sold on long terms. During 1888 land to the value £11,068,873 changed hands, but in 1896 the amount had fallen

,221,330. The year 1888 marked the last flickering of the boom
iod, when land speculation proceeded on a scale of unexampled reck-
ness. The other extreme was reached in 1895, when the transactions
ounted to only £3,674,837, but although the figures for 1896 show
light improvement, transactions in land still very largely represent
veyances by mortgagors and mortgagees, genuine speculation in land
ing almost wholly died out:—

Year.	Conveyances or Transfers.		
	Under Old System.	Under New System.	Total.
	£	£	£
1887	3,598,034	2,784,853	6,382,887
1888	5,893,373	5,175,500	11,068,873
1889	4,169,822	3,333,411	7,503,233
1890	3,954,358	3,600,392	7,554,750
1891	4,564,285	3,602,082	8,166,367
1892	3,537,829	2,716,379	6,254,208
1893	2,317,777	2,532,211	4,849,988
1894	1,945,527	2,048,977	3,994,504
1895	1,812,199	1,862,638	3,674,837
1896	2,212,158	2,009,172	4,221,330

s already mentioned, the Real Property Act provides that on the
e of a certificate the title of the person named on the certificate is
efeasible. Provision is, however, made for error in transfer, by which
sons might be deprived of their rightful property, as should the
nsfer be made to the wrong person the holder of the certificate
not be dispossessed of his property unless he has acted fraudulently.
indemnify the Government for compensating persons who, through
or, may have been deprived of their properties, an assurance fund
been created by a contribution of one halfpenny in the pound on
declared capital value being levied on property first brought under
Act, and upon transmissions of titles of estates of deceased proprietors.
s an undeniable proof of the value of the Act and the facility of its
king that payments from the assurance fund to the 31st December,
6, in respect of titles improperly granted, amounted to only £3,113.

The amounts paid into the Treasury on account of the assurance fun during each of the six years ended 1896 were as follow :—

Year.	Collections, less Refunds.	Compensation and Cost of Legal Actions.	Amounts Credited to Fund.
	£	£	£
1891	5,345	Nil	5,345
1892	4,670	1,053	3,617
1893	4,083	Nil	4,083
1894	4,882	367	4,515
1895	4,276	1	4,275
1896	3,912	12	3,900

The assurance fund, which forms part of the Trust Fund of t Treasury, amounted to £151,790 at the close of 1896, and bears intere at rates varying from 3 to 5 per cent. The accretions to this fund, th is, interest and collections, average about £7,000 per annum, while t total withdrawals during the whole currency of the Act have only reache £3,000 ; thus, as there is every likelihood of the amount annually add growing larger as years roll on, the fund bids fair to attain considerab dimensions.

MORTGAGES.

All mortgages, except those regulated by the Bills of Sale Act o 1855 and the Merchant Shipping Act of 1894, are registered at th Registrar-General's Office, and it is a fair assumption that the numb recorded represents the bulk of the mortgages effected. Where mor than one mortgage has been effected on the same property, the mortgage take priority according to the time of registration, and not in accordanc with their respective dates. The amount of consideration for which mortgage stands as security is not always stated in the deeds, the word "valuable consideration" or "cash credit" being inserted instead of specific sum in many of the transactions of banks and other loan institu tions, in cases where the advances made are liable to fluctuation ; an as this frequently occurs when the property mortgaged is of great valu an exact statement of the total advances against mortgages cannot b given It must be borne in mind, therefore, that the figures in th tables given below refer only to cases in whch a specific amount i stated in the deeds, whether that amount be the sum actually advance or not. What is true of mortgages registered holds good for discharge the amount of which, as shown in the tables, is still further reduced b the exclusion of mortgages which have been satisfied by foreclosure o seizure, a record of which is not available. Many mortgages, therefor appear in the official records as current, notwithstanding that th property which they represent has passed away from the mortgagor.

MORTGAGES OF REAL ESTATE.

Mortgages of land are registered either under the Deeds Registration Act of 1843 or the Real Property Act of 1862, according to the Act under which the title of the property stood at the time of registration. The mortgages registered for each of the ten years ended 1896 were :—

Year.	Registrations—					
	Under Deeds Registration Act.		Under Real Property Act.		Under both Acts.	
	Number.	Consideration.	Number.	Consideration.	Number.	Consideration.
		£		£		£
1887	6,108	5,869,302	4,239	6,930,665	10,347	12,799,967
1888	7,452	8,765,109	4,274	7,520,914	11,726	16,286,023
1889	9,312	7,277,334	4,416	7,256,931	13,728	14,534,265
1890	9,883	8,072,218	4,697	8,559,662	14,580	16,631,880
1891	10,348	10,520,261	4,523	8,535,876	14,871	19,056,137
1892	10,450	9,328,563	4,644	6,770,594	15,094	16,099,157
1893	9,351	7,434,029	4,704	6,034,324	14,055	13,468,353
1894	8,901	5,824,797	4,277	5,624,968	13,178	11,449,765
1895	8,467	7,183,729	3,886	4,741,877	12,353	11,925,606
1896	7,855	5,428,148	3,677	4,652,779	11,532	10,080,927

The consideration given generally represents the principal owing ; in some cases, however, it stands for the limit within which clients of banks and other loan institutions are entitled to draw, though many of these clients may be in credit while their property is mortgaged and unreleased.

The amount of mortgages discharged has always been much less than the amount registered, for, as previously mentioned, the discharges do not include foreclosures, which if not formally registered as discharges are nevertheless mortgages cancelled. The volume of the releases is also reduced by mortgages paid off in instalments, as the discharges may be given for the last sum paid, which might happen to bear a very small proportion to the total sum borrowed ; and, further, the total of discharges is reduced owing to the practice, now largely followed, of allowing mortgages maturing on fixed dates to be extended for an indefinite period.

Conveyances under mortgage or purchases of equity of redemption, and transfers which represent dealings between mortgagee and mortgagee, are, in point of value, unimportant; nevertheless, to complete th transactions in mortgages, returns covering the period of ten year ended 1896 are given below. The table is incomplete, as the con sideration in respect of conveyances and transfers under the Rea Property Act cannot be given :—

Year.	Deeds Registration Act of 1843.				Transfers of Mortgage under Real Property Act.
	Conveyances under Mortgage.		Transfers of Mortgages.		
	Number.	Consideration.	Number.	Consideration.	Number.
		£		£	
1887	297	143,674	240	501,621	168
1888	192	378,662	276	829,753	189
1889	204	680,240	83	38,690	192
1890	117	88,116	210	229,010	180
1891	348	245,111	246	390,243	218
1892	392	162,307	253	1,219,401	255
1893	430	216,925	383	276,507	347
1894	374	381,738	508	485,489	318
1895	320	159,608	600	768,368	308
1896	467	256,967	370	287,361	227

MORTGAGES ON LIVE STOCK AND WOOL.

Liens on wool, mortgages on live stock, and liens on growing crops are registered under special Acts, the two first mentioned under a measure passed in 1847, and the liens on growing crops under one passed in 1862. The mortgages on live stock are current till discharge, while the liens on wool mature at the end of each season and terminate without being formally discharged. Mortgages under each Act are valid without the stock or crops being delivered to the mortgagees. The figures relating to live stock are given in some detail, as they throw considerable light on the condition of the great industry of the country. They must, however, be taken with this qualification, that the amount stated represents in many cases merely nominal indebtedness, and the advances are not in every instance made to persons financially embarrassed. But with full allowance on this score, the figures given hereunder will make it plain how large a hold the lending institutions have upon the great pastoral industry. The following statement shows the liens on vool and the mortgages on live stock registered during each of the ten ears ended 1896 :—

Year.	Preferable Liens on Wool.			Mortgages on Live Stock.				
	Number.	No. of Sheep.	Consideration.	Number.	No. of Sheep.	No. of Horned Cattle.	No. of Horses.	Consideration.
			£					£
887	1,285	9,296,975	1,685,655	1,563	3,954,286	79,312	11,464	2,054,785
888	1,174	9,800,520	1,282,125	1,998	4,002,148	80,120	12,364	2,003,216
889	1,169	7,861,233	1,282,065	2,018	4,572,477	100,026	11,824	2,432,704
890	1,461	9,005,582	1,562,270	2,230	4,962,300	93,298	12,543	3,159,636
891	1,701	10,201,412	1,320,823	2,328	6,896,947	111,432	16,728	2,632,758
892	2,051	12,094,876	1,688,661	2,326	5,966,971	142,695	16,904	2,814,637
893	2,257	13,204,407	1,935,660	2,270	8,357,014	227,531	24,241	*3,176,725
894	2,627	16,084,929	1,952,451	2,167	6,586,711	698,448	18,016	*2,059,381
895	2,509	14,689,647	2,101,048	1,901	4,983,071	148,629	18,292	2,254,290
896	2,364	11,309,327	1,341,949	1,768	4,748,695	93,550	24,520	1,705,245

* The figures for 1893 and 1894 include the consideration for 245 and 22 camels respectively.

To supplement the information just given, the following table, which ows the proportion of the flocks of the colony covered by lien and ortgage, has been compiled. In addition to the numbers given, a nsiderable quantity of stock is in the hands of financial institutions mortgagees in possession, but an exact statement of this it is not ssible to obtain :—

ear.	Sheep.			Horned Cattle.			Horses.		
	Total in Colony.	Involved in Lien and Mortgage.	Proportion involved to total flocks.	Total in Colony.	Involved in Mortgage.	Proportion involved to total herds.	Total in Colony.	Involved in Mortgage.	Proportion involved to total number.
	No.	No.	per cent.	No.	No.	per cent.	No.	No.	per cent.
887	46,965,152	13,251,261	28·2	1,575,487	79,312	5·0	390,609	11,464	2·9
888	46,503,469	13,802,668	29·7	1,622,907	80,120	4·9	411,368	12,364	3·0
889	50,106,768	12,433,710	24·8	1,741,592	100,026	5·7	430,777	11,824	2·7
890	55,986,431	13,967,882	24·9	2,091,229	93,298	4·5	444,163	12,543	2·8
891	61,831,416	17,098,359	27·7	2,128,838	111,432	5·2	469,647	16,728	3·6
892	58,080,114	18,661,847	31·1	2,221,459	142,695	6·4	484,309	16,904	3·5
893	56,980,688	21,561,421	37·8	2,269,852	227,531	10·0	493,231	24,241	4·9
894	56,977,270	22,671,640	39·8	2,465,411	698,448	28·3	518,181	18,016	3·5
895	47,617,687	19,672,718	41·3	2,150,057	148,629	6·9	487,943	18,292	3·7
896	48,318,790	16,058,022	33·2	2,226,163	93,550	4·2	510,636	24,520	4·8

The mortgages shown represent the annual registrations; hence the eep involved were those pledged during 12 months only, and as the rrency of a mortgage on live stock, unlike that of a lien, which rminates at the end of the season, is variable, it follows that the gures in any year do not represent the total number of sheep covered y mortgage, and that the proportion of the flocks held under lien and ortgage, after making every allowance for releases, is therefore somehat higher than that stated. This remark applies equally to the gures given for horned cattle and horses.

DISCHARGES OF MORTGAGES.

The discharges registered amount in an ordinary year to about one-sixth of the mortgages of live stock registered. The figures for ten years ended 1896 were :—

Year.	Number.	Amount.	Year.	Number.	Amount.
		£			£
1887	210	1,073,674	1892	317	985,048
1888	240	1,160,307	1893	286	1,062,827
1889	256	1,191,089	1894	334	496,041
1890	368	2,512,551	1895	372	1,053,863
1891	380	1,184,372	1896	432	886,218

There were also 50 discharges of liens amounting to £28,171 during 1896 ; these represent transfers of security and repayments during the season, as liens terminate by effluxion of time at the close of the wool season.

LIENS ON GROWING CROPS.

Under the provisions of the Act, liens on agricultural and horticultural produce, the duration of which must not exceed one year, are made. Such advances do not ordinarily reach large sums either individually or in their total, as there is an element of uncertainty in the security offered. During the last ten years the advances ranged from £67,379 to £247,466 per annum. The liens registered in 1896 were 2,567 in number, covering advances to the extent of £202,605 :—

Year.	Number.	Consideration.	Year.	Number.	Consideration.
		£			£
1887	949	67,379	1892	1,416	130,155
1888	1,006	247,466	1893	1,789	159,007
1889	1,227	83,748	1894	2,291	181,432
1890	1,089	75,439	1895	2,621	219,392
1891	1,171	78,448	1896	2,567	202,605

Of the total registrations it is estimated that 40 per cent. are effected on sugar-cane crops.

MORTGAGES ON SHIPS.

Mortgages of registered British vessels are dealt with under the Merchant Shipping Act of 1894. The mortgages are, according to the Act, divided into two classes, one in which the ship is the sole security, and the other in which the advances are made on the security of what is termed in the Act "the account current," which may comprise ships, wharfage appliances, etc. Registrations are effected at the two ports of registry, Sydney and Newcastle; the returns given in the subjoined statements, however, apply only to the former port for years prior to 1895:—

Year	Mortgage on ships only.				Mortgage on account current.			
	Sailing Vessels.		Steam Vessels.		Sailing Vessels.		Steam Vessels.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		£		£		£		£
1891	32	17,777	6	2,472	4	3,672	8	8,800
1892	34	17,971	8	16,675	17	51,293	6	10,000
1893	22	12,882	10	6,681	11	315	15	3,019
1894	34	11,420	18	12,427	4	1,855	7	16,600
1895	24	9,790	9	4,617	9	900	15	19,730
1896	18	6,165	18	19,630	9	5,450	4	7,250

The number of mortgages registered in which ships figure as the sole security represents the vessels encumbered, that is to say, "one ship one mortgage"; the number of mortgages in the other class may or may not represent the number of vessels mortgaged. The discharges of mortgage during the same period were as follow:—

Year.	Mortgage on ships only.				Mortgage on account current.			
	Sailing Vessels.		Steam Vessels.		Sailing Vessels.		Steam Vessels.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		£		£		£		£
1891	13	8,052	9	8,754	3	No amount	7	12,400
1892	21	9,219	5	2,968	6	2,717	2	872
1893	20	13,962	4	12,866	1	No amount	2	90
1894	13	5,948	11	9,725	1	do	nil.	nil.
1895	28	11,096	7	8,664	6	216	8	1,000
1896	15	5,230	9	13,553	2	501	2	150

In some cases of mortgages on account current the amount of consideration is not stated, and the figures given must be accepted with this qualification.

PRIVATE FINANCE.

BILLS OF SALE.

ortgages of personalty other than ships and shipping appliances, stock, and growing crops, are filed and entered at the Supreme nder the Bills of Sale Act of 1855. This Act provides that each document shall be filed and entered within 30 days after it is made or given, otherwise the transaction is illegal; and to prevent fraud and imposition the records are open to the inspection of the public. The total amount of advances annually ma le on bills of sale is not readily available, but judging from the ber of bills filed the sum must be considerable. The provisions ct are availed of by all classes of the community, but brewers ney lenders figure conspicuously among the transferrees. No te record is made of the bills terminated voluntarily or by seizure, he official records showing only those discharged in the ordinary way. Seizures of the security given, which generally comprises hous furniture and stock-in-trade, are common occurrences, and it is regretted that no record of them is kept; but, as previously sh e neglect in the registration of foreclosures is a weakness in th edure under all Acts regulating mortgage transactions. The bill d and the discharges registered for the seven years ended 1896 were as follow:—

Year.	Bills of Sale.	
	Filed in Supreme Court.	Satisfied or orders for discharge made.
1890	3,045	221
1891	2,697	136
1892	2,776	132
1893	3,111	96
1894	2,752	77
1895	2,512	140
1896	2,375	158

SUMMARY OF MORTGAGES.

The volume of mortgages registered and discharged under each class is given below. As the returns are incomplete, from causes already alluded to, no general total has been established. The following table shows the total consideration of the mortgages registered during each of the last five years:—

Property.	1892.	1893.	1894.	1895.	1896.
On Real Estate—	£	£	£	£	£
Under Deeds Registration Act	9,328,563	7,434,029	5,824,797	7,183,729	5,428,148
,, Real Property Act..........	6,770,594	6,034,324	5,624,968	4,741,877	4,652,779
On Personalty—					
Liens on Wool	1,688,661	1,935,660	1,952,451	2,101,048	1,341,949
Mortgages on Live Stock	2,814,637	3,176,725	2,059,381	2,254,290	1,705,245
Liens on Growing Crops	130,155	159,007	181,432	219,392	202,605
Mortgages on Ships	35,406	19,833	24,907	14,407	25,795
,, ,, and Shipping Appliances	*61,293	*3,334	18,455	*20,630	*12,700
Bills of Sale	Not available.				

* Figures incomplete.

The consideration of the mortgages of which discharges were registered during each of the last five years is given below:—

Property.	1892.	1893.	1894.	1895.	1896.
On Real Estate..	£	£	£	£	£
Under Deeds Registration Act	2,718,350	1,864,021	2,060,696	2,505,730	3,106,361
,, Real Property Act..........	2,809,272	1,927,794	2,083,092	2,715,443	2,798,795
On Personalty—					
Liens on Wool	At end of each Season.				
Mortgages on Live Stock	985,048	1,062,827	496,041	1,053,863	886,218
Liens on Growing Crops	At end of each Season.				
Mortgages on Ships	13,641	26,988	16,273	19,760	18,783
,, ,, and Shipping Appliances	3,589	*90	......	*1,216	651
Bills of Sale	Not available.				

* Figures incomplete.

FRIENDLY SOCIETIES.

The position occupied by Friendly Societies at the present day is a most important one, on account of the strong influence which they exert on the welfare of the industrial classes of the population; and recognising the services which they render to the community by the inculcation of habits of thrift, and the relief of cases of distress which it would otherwise be the duty of the public to alleviate, the State, while forbidding the carrying on of operations by an unregistered society, and imposing a penalty on each member of its committee should it accept money in consideration of any interest therein, grants certain privileges to societies whose rules have been certified to by the Registrar as being in conformity with the law. These privileges are as follow :—

1. A registered Society can legally hold land and other kinds of property in the names of trustees, such property passing from one trustee to another by the mere fact of appointment, and can carry on all legal proceedings in the trustees' names.
2. The Society has a remedy on summary conviction whenever any person—
   (*a*) Obtains possession of its property by false representation or imposition ;
   (*b*) Having possession of any of its property, withhold or misapplies it ;
   (*c*) Wilfully applies any part of such property to purposes other than those expressed or directed by the rules and authorised by the Act.
3. If an officer of the Society dies or becomes bankrupt or insolvent, or if an execution is issued against him whilst he has money or property of the Society in his possession by virtue of his office, the trustees of the Society are entitled to claim such money or property in preference to any other creditors.
4. The documents of the Society are free from stamp duty.
5. The Society can admit members under twenty-one and take from them binding receipts, which would otherwise be of no effect.
6. If it invests money on mortgage, such mortgages can be discharged by a mere endorsed receipt without reconveyance.
7. Its officers are legally bound to render account and give up all money or property in their possession on demand or notice, and may be compelled to do so.
8. Disputes can be legally settled according to the Society's own rules.
9. Members of registered Friendly Societies have the privilege of legally insuring money, on the deaths of their wives and children, for their funeral expenses, without having an insurable interest in their lives.
10. Members of registered Societies may dispose at death of sums payable by the Society by written nomination without a will, and this nomination may be made by youths of sixteen who cannot make a will till they are twenty-one.
11. Where there is no will and no nomination, the trustees may distribute sums without letters of administration being taken out (a person who should do so in any other case would make himself liable for the debts of the deceased).

t of the Friendly Societies operating in New South Wales were
d by old members of English orders who had emigrated to
lia before the light of public investigation had been thrown upon
iness of the societies in Great Britain, and an exposure made of
cientific principles on which they were being conducted. Accord-
the societies established in this colony were from the commence-
orked under a fallacious system, which was regarded as perfect,
soon as it was discovered that there was an accumulation of funds
mbers looked upon the money as their personal property—in
s profit derived from their exertions. They argued that any
le change from the existing satisfactory condition of affairs would
y compensated for by the introduction of younger members, who
r turn would be satisfied with the present, and trust to others in
ure; and any proposal for the application to their affairs of the
ic principles which governed the operations of friendly societies
ere was strenuously opposed as unnecessary until very recently,
nany leading members were induced, owing to the rapid depletion
funds of their orders, to give serious consideration to their
n.

of the principal causes which raised this false feeling of security
at in times of general prosperity many employers paid good
en their wages during short periods of sickness in order to retain
ervices, and members in receipt of high wages and in tolerably
rcumstances did not feel the necessity of accepting assistance
heir lodges. Also, it must be borne in mind that in those years
mbers were young, and even if all claims had been preferred it
able that the benefits would not have amounted to a large sum,
t the funds of the societies could not do otherwise than increase
e of the inadequate scale of contributions charged. An exami-
of the records of the registration of amended rules shows what
cumulation of capital led to: in many cases the members of a
thought it right not only to lower their contributions, but at the
ime to increase the benefits given. The inevitable results have
ed; the members have grown older, the claims on account of
s and death have increased, and the depression in trade has
led those out of employment to come upon the funds whenever
e, so that many of the societies now existing are in a state of
ncy.

as already been stated, now that the fallacy underlying the old
of conducting the affairs of the societies has been so forcibly
ed, some attempt is being generally made to place affairs on a
basis, but even now the steps taken by many of the older members
ting and uncertain; they concede that an error of judgment was
ted in the past, but are unwilling to tax themselves to any
rable extent for the purpose of placing matters upon a better
. At the same time they are convinced that no new members
be admitted unless they pay according to a properly-adjusted

scale of contributions. It is the intention of the Government to prepa a Bill under which the societies may be brought into a more satisfacto position than they occupy at the present time.

A list of the principal societies is given below, from which it will seen that at the end of 1895 there were in existence 15 leading orde (some of them sub-divided into districts, provinces, or grand division comprising 804 distinct subordinate branches; and 24 independe societies:—

Name of Orders or Societies.	Lodges or Branches.	Members.	Members good on books.	Amount of Lodge or Branch Funds.	Amount of District or Grand Lodge Funds.	Total Fund
	No.	No.	No.	£	£	£
Manchester Unity I.O.O.F.—						
Sydney District	69	10,063	9,443	93,314	27,232	[illegible]
Cumberland District	9	507	463	1,584	786	[illegible]
Hunter River District	7	661	600	7,115	2,176	[illegible]
Goulburn District	12	1,423	1,310	11,954	8,022	[illegible]
Newcastle District	11	1,225	1,173	2,945	7,228	[illegible]
Bathurst District	22	1,654	1,523	12,843	6,684	[illegible]
Tamworth District	16	1,799	1,698	18,578	7,813	[illegible]
Riverina District	7	709	663	4,355	2,671	[illegible]
Braidwood District	2	91	82	663	1,558	[illegible]
Young District	4	356	331	1,897	931	[illegible]
Grand United O.O.F.—						
Sydney District	43	4,718	4,126	22,264	9,328	[illegible]
Braidwood District	20	1,030	861	5,548	6,572	[illegible]
Manning River District	6	210	166	1,138	847	[illegible]
Newcastle District	3	352	308	2,161	631	[illegible]
Hunter River District	25	1,736	1,546	8,533	3,101	[illegible]
Bathurst District	6	537	441	2,105	1,861	[illegible]
Goulburn District	9	590	510	3,092	1,506	[illegible]
Williams River District	6	284	252	2,434	493	[illegible]
Committee of Management	..	....	....	....	214	[illegible]
Widow and Orphans' Fund in the Hunter River District.	..	....	....	....	580	[illegible]
Independent O.O.F.	71	5,071	4,410	21,072	15,735	[illegible]
National Independent O.O.F.	6	586	456	770	345	[illegible]
Ancient Order of Foresters—						
Sydney District	47	3,618	3,202	14,250	7,960	[illegible]
New England District	4	194	153	159	228	[illegible]
Neutral Courts	7	998	903	9,164	....	[illegible]
Order of Royal Foresters	29	1,860	1,728	9,289	18,286	[illegible]
Irish National Foresters	4	256	184	734	120	[illegible]
United Ancient Order of Druids—						
Sydney District	53	4,631	4,110	9,004	7,721	[illegible]
Newcastle District	11	1,068	973	4,976	3,255	[illegible]
Grand United Order of Free Gardeners.	27	1,666	1,490	2,981	137	[illegible]
Independent Order of Rechabites	40	1,590	1,364	1,449	7,313	[illegible]
Sons and Daughters of Temperance	75	4,137	3,656	22,274	2,086	[illegible]
Protestant Alliance Friendly Society of Australasia.	58	6,163	5,489	31,553	15,434	[illegible]
Loyal Protestant Benefit Society	23	822	713	1,868	1,032	[illegible]
Hibernian Australasian Benefit Society.	23	1,775	1,504	4,450	4,168	[illegible]
Australasian Holy Catholic Guild.	25	1,751	1,575	10,151	6,056	[illegible]
Miscellaneous Societies	24	4,202	3,951	15,576	....	[illegible]
Total	804	68,333	61,357	362,243	180,120	[illegible]

The benefits promised by Friendly Societies are, in kind, much same in all societies, and usually comprise medical attendance medicine for a member and his family, sick pay—generally £1 per week for the first six months, reduced thereafter to 15s. or 10s.; allowance in the event of the death of a member's wife, and funeral money to his wife on the death of a member. The Act limits the amount payable on the death of a member to £200, and no annuity can be granted above £50, but there is no limit to the amount of sick pay, although the rules of some societies limit the total amount receivable weekly to 42s., nor to the number of societies to which one person may belong, and from which he may receive benefits, but the combined benefits must not exceed the above-mentioned amounts.

In addition to the Friendly Societies properly so called, some of the registered Trade Unions give benefits analogous to those of the societies mentioned above. The benefits, however, are usually smaller in amount, seldom exceeding 12s. a week for sick pay, and £7 in case of death. A few Trade Unions also make allowance to their members when they are out of employment.

NEW SOUTH WALES is slow to adopt a gene
government, notwithstanding the pressing n
step. In Victoria, Queensland, South Australia, a
comprehensive systems of local government have be
many years, and the benefits derived therefrom are r
by the Governments, but by the ratepayers whose p
The central Government is relieved of responsibilit
which form no part of its proper functions, while t
though compelled to pay rates from which he was prev
fited in other ways which more than compensate for t
payment.

Under the system at present obtaining in New
district, however populous, is compelled to become i
is only on the presentation of a petition, signed by a
prospective ratepayers, and containing a larger nu
than those attached to any counter petition, that a n
formed. Judged by past experience, this voluntar
conducive to the adoption of a general system of loca
so long as the central Government continues to const
is evident that the residents benefited will submit
local management of their affairs.

In the course of the year 1894 a Bill was submit
tive Assembly, providing for the incorporation of th
rated area of the colony into boroughs, municipal dist
area of 400 square miles, and shires ; but in conseq
tion of a clause which they considered contrary to a
the Bill, the measure was abandoned by the Gov
proposed by the Bill to alter the municipal year
from the 1st January to the 31st December ; to al

st five and 2s. 6d. during the last five years; to submit certain ques-
ons, such as the levying of a special rate, the rating on the capital or
e annual value, and the raising of loans, to a general vote of the
tepayers; to levy local rates for works of local benefit; to expend on
ch riding or ward of a municipality the amount of rates collected
om the residents of that riding or ward; to give power to erect
bbit-proof fences, to grant aid to hospitals, and to prevent destruction
fire; to take material for any kind of municipal work from any
nd on payment of compensation; and to raise the borrowing powers
ten times the total of the general rate.

At the end of 1860 the total area incorporated was 409 square miles;
ten years this had increased to 649 miles only; in 1880 to 1,482
iles; in 1890 to 2,387 miles; and in the early part of 1897 to 2,761
uare miles—a very insignificant total compared with the whole area
territory. The subjoined figures give the incorporated and unincor-
rated areas on the 1st February, 1897, in each of the three great
visions of the colony :—

Division.	Incorporated Area.	Unincorporated Area.
	square miles.	square miles.
Eastern	2,011	92,445
Central............	492	86,165
Western	258	124,695
Total.........	2,761	303,305

In addition to the ordinary form of municipal local government,
ere are various boards and trusts with local jurisdiction, to the opera-
ns of which allusion will hereafter be made. The control of water
pply and sewerage of the Metropolitan and Hunter districts is rele-
ted to separate boards. At Hay and Balranald there are irrigation
sts, the formation of which was provided for by special Acts; the
unicipal Councils constitute the trusts. Another trust, which was
tablished at Wentworth, has been dissolved, and its powers assumed
the Government. The Public Vehicles Regulation Act, the Country
wns Water Supply and Sewerage Act, and the Fire Brigades Act,
re all passed with the object of extending the principle of local
vernment, and boards have been established to carry out the pro-
sions of some of these Acts.

Leaving out of consideration the expenditure on works of national im-
rtance, the Government has, during the past thirty-six years and a half,

expended no less than £28,792,000 on works of a purely local character, not including school buildings. Of this sum, £19,270,200 was laid out in the country districts, and £9,521,800 in the metropolitan. The division of the colony into local government districts would not necessarily be followed by an entire stoppage of the direct expenditure on works of local interest by the central Government, but the larger portion of the works now undertaken by Government would be left to the local authorities, who, having to provide the expenditure, would probably see that it is laid out to the best advantage. Adopting the two divisions of metropolitan and country, the expenditure on account of public works in each since 1860 is given below. Out of the total metropolitan expenditure, £6,689,300 was spent on tramways and water supply and sewerage works, which are sources of revenue, while in the country districts the cost of similar works totalled £1,023,600 only :—

Year.	Country districts.		Metropolitan District.		Total.	
	Expenditure.	Per Inhabitant.	Expenditure.	Per Inhabitant.	Expenditure.	Per Inhabitant.
	£	£ s. d.	£	£ s. d.	£	£ s. d.
1860-1880	5,649,382	....	1,065,410	....	6,714,792	....
1881	583,471	1 1 10	357,182	1 10 10	940,653	1 4 7
1882	704,892	1 5 5	702,696	2 17 8	1,407,588	1 15 3
1883	758,052	1 6 1	931,615	3 12 7	1,689,667	2 0 3
1884	940,858	1 10 8	669,209	2 9 5	1,610,067	1 16 5
1885	981,951	1 10 7	704,636	2 9 5	1,686,587	1 16 4
1886	868,923	1 6 0	767,906	2 11 1	1,636,829	1 13 9
1887	784,941	1 2 9	556,660	1 15 2	1,341,601	1 6 8
1888	904,477	1 5 9	344,414	1 0 8	1,248,891	1 4 0
1889	798,383	1 2 4	583,786	1 13 2	1,382,169	1 5 11
1890	874,077	1 3 10	444,723	1 4 0	1,318,800	1 3 11
1891	1,126,446	1 9 11	790,491	2 0 7	1,916,937	1 13 6
1892	1,034,686	1 6 8	563,015	1 7 9	1,597,701	1 7 0
1893	790,500	0 19 11	416,100	1 0 0	1,206,600	0 19 11
*1894-5	1,421,000	1 14 7	408,300	0 19 4	1,829,300	1 9 5
1895-6	1,048,200	1 4 1	215,700	0 10 7	1,263,900	0 19 9

een months ended June, 1895.

INCORPORATION OF THE CITY OF SYDNEY.

he City of Sydney was incorporated on the 20th July, 1842, and Sydney Municipal Council established during the same year, the ion of aldermen taking place on the 9th November. Mr. John king was the first Mayor. The city was first divided into six ls, but at a subsequent adjustment the number was increased to t, as at present. After a few years great dissatisfaction arose in ninds of the citizens in regard to the manner in which the affairs ie Council were carried on; a Select Committee of the Legislative ncil was appointed in 1849 to inquire into the matter, and it rted in favour of the abolition of the Municipal Council, with a nmendation that its powers should be vested in three Commissioners appointed for that purpose. This was not carried into effect until , when the Corporation was dissolved, and its powers were trans-d to a Commission, consisting of Messrs. G. Elliott, J. Rae, and arvall, who administered the affairs of the city from the beginning 54 to the end of 1857. The new Council came into existence at the nning of 1858. Mr. George Thornton was the first Mayor under iew order of things, and there were sixteen aldermen, two for each . Under the present Act—Sydney Incorporation Act of 1879—iumber of aldermen was increased to twenty-four, each ward having representatives, as is the case in the other municipalities.

SUBURBAN AND COUNTRY MUNICIPALITIES.

ie Act by which the City of Sydney was incorporated contained no ision for the extension of the municipal principle to other localities; in 1843 the first step was taken towards the extension of the system ie country districts by the incorporation under letters patent of pbelltown, Appin, Camden, Narellan, and Picton as one District ncil, which was afterwards, in the course of the same year, under a al Act, subdivided into two by the formation of Campbelltown and in into a separate Council.

1844 the number of country District Councils had increased ght, and these, in conjunction with the Municipal Council of iey and the Road Trusts, subsequently established, constituted vhole of the local government system prior to 1858. During this the first important measure relating to general municipal govern-was enacted. An Act was passed making provision for dissolving, cessary, the District Councils, and placing the areas controlled by under municipal bodies. Under its authority thirty-five districts incorporated, which, with the exception of Cook, joined to Cam-own in 1870, and East St. Leonards, subsequently united to

St. Leonards, still exist, although nearly one ha
in the interim on account of additions or curta
was further amended by the Municipalities
Act was passed many amendments have be
provisions have been preserved, and many
parts of the colony have been established unde

BOARDS AND TRUSTS

The majority of the boards dealing with loca
within the metropolitan area and work mostly i
municipalities, although possessing powers ind
The Metropolitan Transit Commissioners w
Public Vehicles Regulation Act of 1873, prior
of the street traffic was vested in the City Coun
consisted of three members, but in 1886 the
four by the appointment of a licensees' repr
during 1896, which were obtained from l
were issued), fines, etc., amounted to £5,169
£5,216.

Under the authority of the Fire Brigades A
Fire Brigade Board and thirty-two country Boa
The cost of maintaining the Metropolitan Briga
amounts by the Government, the municipaliti
area, and the fire insurance companies holding
cipal districts. In 1896 the contributions con
insurance offices interested, £6,300 from the
from the city and suburban municipalities. T
31st December, 1896, was £59,907,953, showi
30 per cent. in ten years, the total at the cl
£46,253,370. Some of the country boards r
Government and the municipalities intereste
panies do not consider themselves bound by th
expenditure in connection with country boa
Boards constituted under the Act, several mu
local Fire Brigades; and in a preceding chapt
Insurance, will be found some particulars resp

The Metropolitan Board of Water Supply and
in 1887, and that of the Hunter District in
transactions will be found in subsequent pages

Prior to 1889 the regulation of the port of
to the Marine Board of New South Wales. I
was passed which transferred the control of the
of twelve Commissioners, who were empowere

regulate the port. The revenue during 1894 was £6,507, and the expenditure, £7,988. The Trust, which was the only one of its kind in the colony, was dissolved in the latter part of 1895, when the Government took over the administration of the port.

Irrigation Trusts were established at Wentworth, Hay, and Balranald, under special Acts passed in 1890, 1892, and 1893 respectively. It was provided in each case that the members of the Municipal Council for the time being should be the trustees, and that they should, with the permission of the Governor-in-Council, be authorised to borrow money for the purpose of tapping the neighbouring rivers, and of erecting plant and constructing works for the irrigation of a portion of the temporary common, which should be divided into lots and leased to suitable persons. The area brought under the Wentworth Trust consisted of 10,600 acres; and £1,000 was spent in preliminary expenses during 1894. Under a special clause of the Act, however, the trust has now been dissolved, and its powers assumed by the Government, who have constructed the necessary works. The land administered by the Hay Trust, comprising 12,847 acres, was thrown open in December, 1893, and at the end of 1894, 62 holdings, embracing an area of 778 acres, had been applied for. The principal crops planted were barley, wheat, and oats. The receipts during the year 1896 amounted to £120 6s. 6d., of which £111 represented grazing dues, and £9 6s. 6d. deposits on allotments; and the expenditure to £14 3s. 3d. The credit balance at the close of the year was £128 15s. 8d., but the Loan Account showed a debt due to the Bank of £3,389 18s. 6d. At Balranald an area of 1,000 acres has been surveyed, and several blocks of from 5 to 40 acres taken up. Pumping machinery has been erected, and works for the distribution of the water commenced. The trustees have petitioned for the dissolution of the Trust, as at Wentworth.

MUNICIPALITIES, 1895–6.

Under the provisions of the Municipalities Act of 1867, contiguous districts with an area of not more than 9 square miles, and a population of not less than 1,000, may be incorporated as boroughs; and districts of not more than 50 square miles, with a population of not less than 500, may be formed into municipal districts. Since the passing of this Act the number of municipalities has steadily increased, the total in 1877 having been 76; in 1887, 122; and at the beginning of 1897, 183. Of these, 76 were boroughs and 107 municipal districts, the City of Sydney being classed with the former, as are the remainder of the 35 municipalities established under the previous Act of 1858. In the course of the municipal year, 1896–7, Grafton was divided into two, the detached portion being named South Grafton, and one new incorporation took place, namely, Ingleburn. Notwithstanding the relatively small area incorporated, the population within the boundaries of these districts in February, 1896, numbered 749,110, which was equal to an average density of 271 to the square mile, or nearly 156 times that of the rest of the colony.

In the City of Sydney there were, at the close of 1895, 22,500 houses, occupied by 96,330 persons; in the suburbs of Sydney there were 65,058 houses, in which 313,670 persons dwelt; while in the country municipalities there were 68,132 houses, occupied by 339,110 persons; thus making a total for all municipalities of 155,690 dwellings, accommodating approximately 749,110 people. In the unincorporated portion of the colony there were about 100,000 houses, inhabited by approximately 528,760 persons.

The estimated value of land, houses, and other permanent improvements in the colony may be approximately stated at £262,390,000, of which £127,499,700 is the value of ratable property in the incorporated districts. The value of unsold Crown lands is not, of course, included in this estimate.

Authority is given by the Act to maintain the thoroughfares; to construct lighting, sewerage, and water supply works, and to levy the necessary rates in connection therewith; to make and enforce by-laws for the maintenance of the public health and the abatement of nuisances; to license vehicles plying for hire; and generally to take measures for the material and sanitary condition of the residents.

By the Municipal Wharfs Act of 1893, Councils are empowered to purchase or lease any wharfs, jetties, piers, etc., erected within the district, and to borrow money for the purpose of constructing such landing places.

The Sydney Corporation Act directs that valuers shall be appointed from time to time to assess improved property within the city at the fair average annual value, with an allowance for outgoings not exceeding 10 per cent., and on the value of such assessment a city rate not exceeding 2s. in the £ may be levied, exclusive of lighting. Appeal Courts are held annually. The latest assessment was made in 1896; but the rate has stood at 16d. since 1891, and has again been left at that figure for 1897. This rate is the only one at present in force. The Act, however, provides also for a special local rate not exceeding 6d. in the £ of annual value, for any work which may be for the particular benefit of one locality, but then only if two-thirds of the ratepayers of such locality petition for the same. Occasional advantage of this power has been taken for street-watering, though not of late years. The value of the unimproved land within the city boundaries—probably not more than 4 per cent. of the whole ratable property—is included with the improved; the amount assessed is 6 per cent. of capital value, in accordance with the Act.

Under the Municipalities Act of 1867 two persons are appointed every year to make a valuation of all municipal property, and the councils are empowered to raise revenue by rates on the value so found, not exceeding 1s. in the £ for ordinary purposes, and the same amount for special purposes. The amount of each rate is calculated upon nine-tenths of the fair average annual rental of all buildings and cultivated lands, or lands which are, or have been, let for pastoral, mining, or other purposes, whether such lands or buildings are actually occupied or not; and upon 5 per cent. of the capital value of the fee-simple of all unimproved lands. In some cases lands are leased at merely nominal rentals, and attempts have been made to amend the law so that in no case shall the annual value of ratable property be computed at less than 5 per cent. of its capital value, but so far without success. The maximum general rate is now, in the majority of cases, found inadequate, and special grants of 5s. to 20s. per £ of general rates collected have been voted by Parliament from time to time, the two latest being one of 5s. on rates collected between the months of February and August, 1895, and another of the same amount on collections between August, 1895, and August, 1896. None of these special grants applied to the City of Sydney. In addition to these special general grants, a sum of £11,023 was granted, and £9,724 was paid, as special grants, principally towards the maintenance of municipal roads, in the course of the eighteen months from the beginning of 1895 to the end of June, 1896.

During the municipal year 1896–7 the ordinary rate of 1s. in the £ was levied in all the suburban and country municipalities, with the exception of Darlington, Carcoar, Cooma, and Cudal, which imposed 9d., and Lithgow, which imposed 6d. In Darlington the rate of 9d. included the cost of lighting the borough by gas, and in a few country municipalities the cost of street lighting was also paid out of the general rate. There were 95 municipalities where lighting rates were imposed, ranging from 1d. to 6d. in the £ for gas, 3d. to 6d. for electric light, and 2d. to 3d. for oil lamps. In only 26 municipalities, exclusive of those supplied by the Metropolitan Water and Sewerage Board, was there a water rate, viz., 1s. in the £, with four exceptions—two at 9d., and two at 8d. Manly was the only municipality which has erected waterworks under the Metropolitan Water and Sewerage Act; while Hay was the only one of the country municipalities which had taken advantage of the Country Towns Water and Sewerage Act, where a rate was not levied to defray the cost of the service, the supply being optional, and the charge made by meter. Other special rates, mostly for street-watering, were levied in some of the municipalities. Only two districts—Kempsey (¼d.) and Wollongong (½d.)—levied a library rate—reading facilities being afforded without charge by the local council in many other towns, or, for a small fee, by the local School of Arts or Mechanics' Institute. Although authorised by the Act of 1867 to levy a rate for the purpose of providing the means of education for young children, it is not necessary to take advantage of this provision, owing to the excellent system of public instruction in force in the colony.

Municipalities which avail themselves of the provisions of the Country Towns Water and Sewerage Act of 1880 are empowered to levy a rate for each service not exceeding a maximum of 5 per cent. on the assessed value of land and tenements, in addition to the ordinary municipal rates. At the 30th June, 1897, there were, including Richmond, 27 municipalities with water-works constructed under the provisions of the Act, while works were in progress at Tamworth.

The Noxious Trades and Cattle Slaughtering Act and the Dairies Supervision Act are administered by the Board of Health; but licensed premises are supervised by the Municipal Councils, who receive the fees. In unincorporated districts the Acts are in charge of the police.

In order to aid municipalities in providing for the expenditure attending their inception, the Act of 1867 provides for endowment being granted for a period of fifteen years. In each of the first five years after incorporation, every municipality is entitled to a sum equal to the whole amount actually raised by rates or assessments paid during the past half-year; in each of the next succeeding five years, a sum equal to one moiety; and in each of the next succeeding five years, a sum equal to one-fourth of the amount so received. After the expiry of these fifteen years the assistance which municipalities may demand from the Government ceases, and further aid from the State must be obtained by special grant.

The City Act of 1879 provided for an annual endowment by the State of £25,000 for a period of ten years. It also enacted that all fees for auctioneers' licenses within the city should be paid over by the Treasury to the City Council. The amount so received in 1895 was £2,137, and in 1896, £3,438. Although the Act authorised the raising of loans equal in amount to five years' revenue after the discontinuance of the endowment in 1889, yet it has been found convenient to obtain special Parliamentary sanction to each new loan. Particulars of all City loans will be found on page 998.

Under the 1867 Act the Council of any municipality may borrow on debentures, mortgage, or bond, hypothecating any land, personal estate, or annual revenue, actual or prospective, belonging to the municipality, provided that the amount borrowed does not exceed the estimated revenue for five years. In 1884 and 1888 Acts were passed empowering the Councils to contract special loans for the erection of gasworks and town halls, and in 1893 another amending Act, empowering the Councils to raise money to repay loans, became law.

About one half of the municipalities are divided into wards, the number of which is regulated by the population; and every person, whether male or female, of the full age of twenty-one years, who, on the 7th day of January in any year, may be the occupier, lessee, or owner of any ratable property within any municipality, and who may have paid rates on the same prior to day of election, is entitled to vote. If the property be assessed at an annual value not exceeding £25, the ratepayer is entitled to one vote; if assessed at over £25 and not exceeding £75, o two votes; if over £75 and not exceeding £150, to three votes; and if over £150, to four votes. Voting is by ballot, as in Parliamentary elections; and by special enactment, both owner and tenant are entitled to vote in the City of Sydney, the ratepayer being allowed the cumulative vote (if any), the other one vote only. It is impossible to say, in the present state of the returns of the suburban and country municipalities, how many persons in the aggregate have the right to vote; but there were 399 aldermen in suburban, and 1,200 in country municipalities, which would give one alderman to 786 residents in the former, and to 283 in the latter. In December, 1896, the number of electors in the eight wards of the City of Sydney was 22,428, being an average of 935 electors per alderman. Only three wards were contested, the votes polled being 5,470. In the other municipalities, in February, 1896, 164 wards were contested out of a total of 372. The municipal year in the City of Sydney is from 1st January to 31st December, and the elections are held on the 1st December in each year. In all the other municipalities the year begins on the first Tuesday in February, on which day the nominations are made, polls for contested seats being taken within a week; one-third of the aldermen retire annually, and two auditors for the year are elected.

The following table shows the capital and annual values and the assessment of boroughs and municipal districts for the year 1896-7 :—

Division.	Capital Value of—		Total Amount of General Rate Levied.	Fair Average Annual Value of—	
	Improved Land with Buildings thereon.	All Ratable Property.		Improved Land with Buildings thereon.	All Ratable Property.
	£	£	£	£	£
City of Sydney	44,740,700	44,740,700	134,222	2,237,040	2,237,040
Suburbs	39,747,400	46,686,400	132,119	2,558,000	2,904,950
Total, Metropolitan	84,488,100	91,427,100	266,341	4,795,040	5,141,990
Country	32,380,700	36,072,600	110,750	2,277,150	2,461,745
Grand Total	116,868,800	127,499,700	377,091	7,072,190	7,603,735

As previously mentioned, a nominal annual value is frequently set upon unimproved land in order to avoid full rating, and in such cases no accurate estimate can be made of the property. It may be taken, therefore, that the figures, both in the preceding and the following table, suffer on this account. On the other hand, it has been found difficult to obtain valuations which show the total extent of the decline in the values of real estate since 1893, for it is not generally considered that the reduction of the capital value is in ratio to that of the annual value as indicated by the lower rating. It will probably be found that the figures based on the rating for 1897–8 will show a still further reduction:—

Municipal Year.	Metropolitan Area.		Country Municipalities.	Total.
	Sydney.	Suburbs.		
	£	£	£	£
1886–7—Annual value......	2,035,235	1,935,884	1,713,578	5,684,697
Capital value.........	40,704,700	29,410,787	21,828,805	91,944,292
1887–8—Annual value	2,096,476	2,289,685	1,727,951	6,114,112
Capital value..... ...	41,929,520	32,960,620	21,657,828	96,547,968
1888–9—Annual value......	2,131,026	2,501,904	1,895,591	6,528,521
Capital value.........	42,529,525	35,536,209	27,738,434	105,804,168
1889–90—Annual value ...	2,228,817	2,987,061	2,149,566	7,365,444
Capital value.........	44,576,340	45,635,138	30,073,617	120,285,095
1890–1—Annual value......	2,276,362	3,110,825	2,405,163	7,792,350
Capital value.........	45,527,240	48,208,834	33,475,972	127,212,046
1891–2—Annual value......	2,710,488	3,141,101	2,505,214	8,356,803
Capital value.........	51,237,600	47,987,210	34,784,948	134,009,758
1892–3—Annual value......	2,785,846	3,227,851	2,683,806	8,697,503
Capital value.........	55,716,900	51,174,200	37,386,300	144,277,400
1893–4—Annual value... ..	2,777,245	3,290,637	2,861,593	8,929,475
Capital value.........	55,550,000	54,511,000	40,877,000	150,938,000
1894–5—Annual value......	2,496,175	3,190,022	2,774,477	8,460,674
Capital value.........	55,470,000	53,481,000	42,275,000	151,226,000
1895–6—Annual value... ..	2,361,290	2,991,630	2,542,725	7,895,645
Capital value.........	47,225,800	49,466,400	39,509,900	136,202,100
1896–7—Annual value......	2,237,040	2,904,950	2,461,745	7,603,735
Capital value.........	44,740,700	46,686,400	36,072,600	127,499,700

The increase shown in this table to have taken place between 1886 and 1894 is very considerable, the annual value having risen from

£5,684,697 to £8,460,674, and the capital value from £91,944,292 to £151,226,000. Part of this increase was due to an additional number of districts incorporated; but when allowance is made for these it will still be found that the capital value increased by something like 49 per cent. During the last two years there has been a fall of 15 per cent. in the capital value, after taking into account the addition to the total by the incorporation of new municipalities.

The details of the net increase during the ten years from 1886–7 to 1896–7 are as under—

Division.	Increased annual value during ten years.		Increased capital value during ten years.	
	Total.	Per cent.	Total.	Per cent.
	£		£	
City of Sydney	201,805	9·92	4,036,000	9·92
Suburbs of Sydney	969,066	50·06	17,275,613	58·74
Country Municipalities	748,167	43·66	14,243,795	65·25
Total	1,919,038	33·76	35,555,408	38·67

The growth of the city and suburbs has been marvellous, and Sydney now stands as the second city of the British Empire, as estimated by the annual value of its ratable property, Melbourne ranking third. The annual value of property in Sydney and suburbs, covering an area of 90,230 acres, was, in February, 1896, £5,141,990; while, during the same year, the annual value of Greater Melbourne, with an area of 163,942 acres, was £4,339,000. The following are the annual values of some of the principal cities of Great Britain at the latest available dates:—

London (County)	£35,852,468
Glasgow	4,208,000
Liverpool	3,775,045
Manchester*	2,934,545
Birmingham	2,217,392
Leeds	1,420,366
Sheffield	1,239,447
Bristol	1,113,625
Bradford	1,097,661
Newcastle-on-Tyne	1,075,153
Nottingham	892,479

* Excluding Salford.

The capital value of all ratable property in municipalities for 1896–7 is shown in the following table:—

Municipality.	Total Capital Value of Ratable Property.	Municipality.	Total Capital Value of Ratable Property.
Metropolitan—	£	Country—	£
Sydney	44,740,700	Aberdeen	67,300
		Adamstown	128,700
Suburbs—		Albury	423,800
Alexandria	795,300	Armidale	427,100
Annandale	759,900	Auburn	397,000
Ashfield	2,075,500	Ballina	104,400
Balmain	3,284,200	Balranald	70,100
Botany	240,700	Bankstown	184,300
Botany North	333,000	Bathurst	1,052,600
Burwood	1,500,000	Bega	279,400
Camperdown	651,500	Berry	323,000
Canterbury	709,400	Bingara	55,600
Concord	550,000	Blayney	138,900
Darlington	263,900	Bombala	94,400
Drummoyne	367,700	Bourke	434,900
Enfield	329,600	Bowral	333,000
Erskineville	383,300	Braidwood	171,100
Five Dock	240,900	Broken Hill	1,232,600
Glebe	2,224,100	Broughton Vale	66,000
Hunter's Hill	620,100	Burrowa	125,700
Hurstville	696,100	Cabramatta and Canley Vale	115,200
Kogarah	513,100	Camden	220,800
Lane Cove	343,700	Campbelltown	214,700
Leichhardt	1,407,000	Carcoar	32,300
Manly	911,000	Carrington	167,300
Marrickville	2,290,000	Casino	154,400
Marsfield	67,300	Castlereagh	66,500
Mosman	756,200	Cobar	172,600
Newtown	2,427,300	Condobolin	125,900
North Sydney	3,987,100	Cooma	234,900
Paddington	2,215,200	Coonamble	201,800
Petersham	2,127,200	Cootamundra	201,000
Randwick	1,708,400	Coraki	48,600
Redfern	2,320,000	Cowra	175,300
Rockdale	977,300	Cudal	89,900
Ryde	515,300	Cudgegong	414,000
St. Peter's	551,400	Deniliquin	327,500
Strathfield	913,900	Dubbo	366,600
Vaucluse	165,900	Dundas	181,600
Waterloo	777,000	Dungog	91,500
Waverley	2,525,200	Ermington & Rydalmere	117,500
Willoughby	844,700	Forbes	439,100
Woollahra	2,337,000	Gerringong	208,500
		Glen Innes	312,700
Total, Suburbs ......£	46,686,400	Gosford	91,500
Total, Sydney	44,740,700	Goulburn	1,077,900
		Grafton	497,000
Total, Metropolitan...£	91,427,100	Granville	753,100
		Grenfell	111,300

unicipality.	Total Capital Value of Ratable Property.	Municipality.	Total Capital Value of Ratable Property.
—*continued.*	£	Country—*continued.*	£
	96,200	Peak Hill	55,900
g	178,300	Penrith	300,300
gai	110,200	Picton	100,100
dah	88,900	Plattsburg	230,600
on	523,700	Port Macquarie	76,900
	332,600	Prospect & Sherwood	407,800
nd	36,200	Queanbeyan	81,300
n	128,300	Quirindi	159,700
ra Central	671,600	Raymond Terrace	66,800
ra North	264,700	Richmond	153,600
urn	32,600	Rookwood	288,400
l	229,500	Scone	83,400
roo	340,000	Shellharbour	235,100
rie	152,700	Shoalhaven, South	165,300
	157,500	Silverton	68,700
nba	177,000	Singleton	232,500
ey	177,800	Singleton, South	101,100
	256,500	Smithfield & Fairfield	162,000
on	188,800	St. Mary's	194,000
on, New	130,000	Stockton	198,500
e	389,500	Tamworth	396,600
w	388,700	Taree	78,400
ool	410,800	Temora	153,700
n	97,400	Tenterfield	220,200
nd, East	321,900	Tumut	114,000
nd, West	895,600	Ulladulla	305,100
ether	354,900	Ulmarra	199,000
ong	156,400	Uralla	60,400
	150,300	Wagga Wagga	438,500
	95,600	Walcha	118,800
	159,200	Wallendbeen	124,800
h	107,300	Wallsend	283,400
	107,800	Waratah	377,100
ale	257,700	Warren	128,600
e	281,600	Wellington	149,100
	75,000	Wentworth	55,400
nburrah	112,400	Wickham	758,700
rundi	63,700	Wilcannia	113,800
llbrook	172,000	Windsor	180,400
ri	140,700	Wingham	41,700
ri West	49,000	Wollongong	413,500
dera	234,000	Yass	208,300
stle	2,431,800	Young	236,900
	211,000		
n	83,800	Total, Country £	36,072,600
	396,100	Total, Metropolitan	91,427,100
, East	179,800		
	266,000		
atta	1,370,200	Grand Total £	127,499,700

Mining property is subject to rating only in respect of the value of the surface area and of the buildings erected thereon; and in the case of Broken Hill and other mining municipalities, this value is included in the amounts set down in the above table.

The total revenue collected by all the municipalities of the colony during the year 1895–6 amounted to £745,006, including the State endowments and grants of £122,805. The chief heads of revenue were as stated below. The grants for roads are shown separately, as they are almost exclusively for the maintenance of Government roads passing through the municipalities. In "other rates" are included the sanitary charges—where these are collected by the municipalities—although they are not levied at so much per £, but represent fees for direct services:—

Division.	General rates.	Other rates.	Endowments and Grants.	Road Grants.	Other Revenue.	Total.
	£	£	£	£	£	£
Sydney—City	143,563	......	......	......	45,782	189,345
,, Suburbs	132,609	62,170	46,228	5,164	18,175	264,346
Country	104,676	60,561	54,044	17,369	54,665	291,315
Total	380,848	122,731	100,272	22,533	118,622	745,006

The general rates amounted to £380,848—1s. in the £ being the general rate of all municipalities except the City of Sydney, which levied 1s. 4d.; the municipalities of Darlington, Carcoar, Cooma, and Cudal, where the rate was 9d.; and Lithgow, where a rate of 6d. only was struck. No special rate is levied in the City, and in order to make the comparison complete the cost of lighting and of street watering should be deducted from the general rates. The amount spent for the former service during 1895 was £13,602, or equal to nearly 1½d. in the £; and on street watering £4,841, equal to ½d. in the £.

Other rates and charges—for lighting, water, and other services—are levied in many municipalities, and the receipts under this head amounted in 1895–6 to £122,731. This sum does not include the proceeds of rates levied by the Metropolitan and Hunter District Water and Sewerage Boards, and the water supplies of Campbelltown, Liverpool, and Richmond, which, though actually local rates, are not collected by the municipalities affected by them. The amount received from the sources specified during 1895–6 was £284,272, making, with the sum already mentioned, £407,003 as the total charge for these special services.

The endowments and grants amounted to 16·48 per cent. of the total revenue, the sum being equivalent to 3s. 3¼d. per head of the total population within incorporated areas, or to 18·81 per cent., or 3s. 9⅛d. per head, excluding the inhabitants of the City of Sydney. The proportion which each source of revenue bears to the whole varies considerably, as the following statement shows:—

Division.	General Rates.	Other Rates.	Endowments and Grants.	Other Revenue.
	per cent.	per cent.	per cent.	per cent.
Sydney—City	75·82	....	....	24·18
„ Suburbs	50·16	23·52	19·44	6·88
Country	35·93	20·79	24·52	18·76
Total	51·12	16·48	16·48	15·92

It will be seen from a previous table that the gross revenue of all municipalities, not including the State endowment, was £622,201; if to this be added the revenue of the Metropolitan and Hunter District Water and Sewerage Boards, the total will reach £906,473. This may be taken as the whole burthen of local taxation, and is equivalent to about 24s. 2d. per head of the population residing within the limits of incorporated districts, and to 11·92 per cent., or 2s. 4¼d. in the £, of the total annual value of all ratable property, as against an average of 3s. 10d. levied in England and Wales, namely, 5s. 1d. in the Metropolitan, and 3s. 6d. in other districts. These amounts are there considered low, and are, in fact, far from representing the total of the municipal expenses, as, in the case of the provincial municipalities, large sums are contributed from the profits on the gas, water, and other undertakings so largely in their hands. In New South Wales, however, as already shown, the Government contributes largely to the cost of maintaining the municipalities.

In connection with the municipal accounts of the colony, it may here be explained that the returns furnished by the councils are not so accurate as might be desired, and the amounts of revenue and expenditure given must be taken as the nearest approximation that can be arrived at. It is possible that in some cases items of account, such as transfers and cross entries, which do not really affect the revenue or expenditure, are included, while, on the other hand, items which ought to be included are left out. These errors are gradually being rectified, as the accounts are now checked in the Statistical Office in a systematic fashion, as far as it is possible at the present time to do so. In making comparisons with previous years, however, it will be well to bear this in mind.

The total expenditure during 1895–6 by the various municipalities, including payments to sinking funds, amounted to £799,055, which was

£34,049 in excess of the revenue receipts. The municipal expenditure may be grouped under the following heads :—

Head of Expenditure.		Amount.	Per cent.
	£	£	
Salaries and office expenses	73,356		
Other expenditure on administration	27,692		
		101,048	12·97
General works, services, and improvements		340,338	43·68
Lighting		78,625	10·10
Water		18,679	2·40
Sanitary and other expenditure not defrayed out of general rate and endowments		62,040	7·96
Interest on loans and overdrafts		136,863	17·57
Payments to sinking funds		13,770	1·77
Miscellaneous		27,692	3·55
Total expenditure £		779,055	100·00

Valuers' and auditors' fees, legal expenses, and some other items which form part of the cost of administration, are entered in the municipal accounts under "Miscellaneous," of which amount they are estimated to make up one half. The totals of "Miscellaneous" have, therefore, been adjusted in the above and in the next three tables, in order to give a more correct statement of the proportion which each head bears to the whole. The total expenditure on sanitary services does not appear in the above table, as in many municipalities the fees are paid to the contractor.

The expenditure of the City of Sydney in 1895 reached the sum of £256,637, viz. :—

Head of Expenditure.		Amount.	Per cent.
	£	£	
Salaries and office expenses, including Mayor, £1,000, and auditors, £200	12,566		
Other expenditure on administration	5,684		
		18,250	7·11
General works, services, and improvements	......	152,984	59·61
Lighting	.. ...	13,602	5·30
Interest on loans	55,400		
Interest on overdraft	367		
		55,767	21·73
Sinking funds		10,350	4·03
Miscellaneous		5,684	2·22
Total expenditure £		256,637	100·00

The expenditure of the suburban boroughs and municipal districts for the year 1895–6 was £243,604, which may be subdivided under the following heads :—

Head of Expenditure.		Amount.	Per cent.
	£	£	
Salaries and office expenses	22,096		
Other expenditure on administration	9,848		
		31,944	13·11
General works, services, and improvements		95,020	39·00
Lighting		35,365	14·52
Sanitary and other expenditure not defrayed out of general rate and endowments		24,994	10·26
Interest on loans and overdrafts		45,762	18·79
Payments to sinking funds		670	0·27
Miscellaneous		9,849	4·05
Total expenditure		243,604	100·00

The proportional cost of administering these municipalities was nearly double that of the city ; but when the smallness of some of the districts is considered, the cost of administration cannot be deemed unreasonably high.

The expenditure of the country municipalities of the colony for the year was £278,814, which, divided under the same headings as those given for suburban municipalities, appears as follows :—

Head of Expenditure.		Amount.	Per cent.
	£	£	
Salaries and office expenses	38,694		
Other expenditure on administration	12,160		
		50,854	18·24
General works, services, and improvements		92,334	33·12
Lighting		29,658	10·64
Water		18,544	6·65
Sanitary and other expenditure not defrayed out of general rate and endowments		37,181	13·33
Interest on loans and overdrafts		35,334	12·67
Payments to sinking funds		2,750	0·99
Miscellaneous		12,159	4·36
Total expenditure		278,814	100·00

In proportion to the total expenditure, the administrative expenses of the country municipalities amounted to nearly half as much again as those of the suburban boroughs. This may be accounted for by the fact that the majority of the country boroughs and municipal districts, though large in area, have but scant population and little revenue, and the proportion of expenses required to defray salaries, etc., is naturally much larger than in the case of the smaller but more populous districts surrounding the metropolis.

The total amount of loans raised during 1895–6 was £94,467, and £96,127 was redeemed. If to the latter sum be added the amount by which the sinking funds were increased, it would appear that the amount unprovided for was reduced by £15,430 in the course of the year. Most of the new loans were mere renewals, opportunity naturally being taken of the general reduction in the rates of interest to considerably reduce, when practicable, the annual liability in respect of interest charges. The total amount of loans, not including the amounts due to the State under the Country Towns' Water and Sewerage Act, outstanding at the close of the year, was £2,585,235, and towards meeting this amount there was at the credit of the sinking funds a sum of £215,768, leaving £2,369,467 not provided for. The total amount authorised to be borrowed by the suburban and country municipalities was much greater than the amount actually raised. In some cases the full amount was not issued, and in others the secured overdraft was less than the amount of securities lodged with the bank. Rates of interest ranged from 4 per cent.—which was carried by £1,005,400—to 8 per cent., which, however, was only payable on £1,053; and the amount paid as interest on loans and overdrafts during the year was £136,863. Adding to the amount of loans the unsecured bank overdrafts, £120,440, on which rates vary from 6 to 8 per cent., a total of interest-bearing indebtedness of £2,705,675 is found, at an average rate of interest of 5·06 per cent.—viz., 4·43 per cent. on the loans of the City of Sydney; 6·28 per cent on those of the suburban municipalities; and 5·92 per cent. on those of the country municipalities. The total debt per head of population living in municipalities amounts to £3 12s. 3d., or, if allowance be made for sinking funds, £3 6s. 6d., while the yearly charge for interest is 3s. 8d. per head. These sums, viewed apart from the resources of the municipalities, are by no means formidable; but taken in connection with their general assets, the debts of municipalities will appear insignificant. The following are the outstanding loans of the City of Sydney at the close of 1895:—

Where floated.	Fund.	Amount.	Rate.	When due.
		£	per cent.	
Sydney	City	20,000	6	*1901
,, ...	,, ...	10,000	6	*1903
,, ...	,, ...	10,000	6	*1904
London	,, ...	60,000	4	*1912
Sydney	Cattle Sale-yards..............	35,000	6	1902
London	Streets Loan	200,000	5	1904
,, ...	,, ...	100,000	4	*1912
Sydney	Town Hall Loan	40,000	6	1901
,, ...	,, ,, ...	35,000	6	1906
London	,, ,, ...	200,000	4	*1912
,, ...	Moore-street Improvement..	250,000	4	*1913
,, ...	Public Markets	300,000	4	*1919
Total............		£1,260,000		

e total debentures, £950,000 are renewable at maturity on
ıority of the several Acts, the particular loans being denoted
able by an asterisk. Sinking funds have been established
ction with most of the issues, the aggregate amount of which, at
of 1895, was £208,154. In addition to the amounts quoted
ıe City of Sydney was empowered in 1896 to raise a further sum
000 towards the construction of the public markets, and also
0 for the purpose of providing electric lighting plant. Up to
of 1896 the only addition made to the City loans was a sum of
received on account of the new public markets debentures, but
mount £72,021 stood at the City's credit in the Union Bank.
funds had increased by £18,306, and amounted to £226,460 on
t December, 1896. The outstanding loans of the other
lities range from £69,400 to £353.

ubjoined statement indicates those municipalities which had
ed liabilities amounting to £5,000 and over at the beginning of

ality.	Amount.	Municipality.	Amount.	Municipality.	Amount.
n—	£	Metropolitan—*cont.*	£	Country—*cont.*	£
dney ..	1,260,000	Strathfield	6,500	Lithgow	6,201
a	17,000	Waterloo	17,000	Liverpool	11,820
e	11,875	Waverley	50,000	Maitland, East ..	6,000
....	15,300	Willoughby	15,000	Maitland, West..	23,000
....	63,000	Woollahra	10,000	Merewether	6,000
....	5,000	Others (under £5,000)	19,433	Molong..........	5,100
....	25,000			Mudgee	5,000
wn	17,000	Total, Metropolitan	1,988,235	Narrandera......	8,190
ry	9,000			Newcastle	57,400
ne	5,000	Country—		Orange	24,459
lle	10,000	Armidale........	18,750	Parramatta......	56,600
t	6,052	Bathurst	13,500	Penrith	23,000
....	37,500	Bega	8,000	Prospect and Sherwood.	6,000
Hill	9,000	Bourke..........	7,500		
......	6,000	Bowral..........	11,979	Tamworth	5,000
t	40,625	Broken Hill	5,000	Wagga Wagga ..	18,200
....	16,000	Cootamundra....	11,000	Waratah	15,500
lle	30,000	Dubbo	15,000	Wickham........	17,100
....	36,000	Glen Innes	13,500	Windsor	6,500
dney ..	63,150	Goulburn........	10,800	Wollongong	8,000
on	69,400	Granville........	16,200	Yass	7,500
a	18,500	Hamilton........	8,300	Young	13,845
......	29,000	Illawarra, Central	5,000	Others (under £5,000)	88,556
....	38,900	Inverell	5,000		
....	16,000	Katoomba	5,000	Total, Country	597,000
....	6,000	Lambton	11,500		
s	10,000	Lismore	12,000	Grand Total..	2,585,235

e total amount, £1,369,659 was raised in London; £1,197,386
y or locally; and £18,190 in Victoria. If allowance be made
£1,110,000 raised in London by the City Council, it will be
t the other municipal authorities have relied chiefly on the
markets to subscribe to their loan issues.

Against its debt of £1,260,000 at the end of 1895 the City of Sydney possessed assets approximately amounting to £3,435,595, made up as follows:—

	£
Value of made roads and streets, not including value of land.	1,476,585
Town Hall, including organ, furniture, etc.	699,658
Markets and land	815,645
Other buildings	119,175
Sale-yards	77,980
Plant, stores, and materials	5,643
Sinking funds	208,154
Fixed deposits and current bank balances	19,457
Outstanding rates	13,298
Total	£3,435,595

If to this sum be added the value of future rates, basing it on the latest assessment, and allowing twenty years' purchase, the total assets would be increased to £6,120,035; so that the loan indebtedness of the City of Sydney would amount to only 20·59 per cent. of the total assets, or 27·13 per cent. of assets excluding made roads.

In addition to the current loans to the amount of £1,325,235, shown in the table on page 999, the suburban and country municipalities were, on the 3rd February, 1896, also indebted for bank overdrafts to the amount of £78,482, and on contracts, etc., to a further amount of £17,478, making a total indebtedness of £1,421,195, or nearly six times the amount of the general rate levied in 1896–7. Those municipalities possessing water-works constructed by the State were also under an aggregate annual liability of £14,532, of which particulars will be found on page 1,002.

The assets of the suburban and country municipalities on the 3rd February, 1896, were as follow:—

	£
Roads and streets, not including land	3,303,502
Town Halls, other buildings, and land	460,693
Water-works (constructed by Government) £401,466	....
Water-works (constructed without Government aid)	54,700
Gas-works and electric-lighting plant	217,924
Sale-yards	23,339
Wharfs	20,312
Sewerage works	72,857
Plant, stores, furniture, and material	44,904
Sinking funds	7,614
Fixed deposits and current bank balances	77,142
Outstanding rates	195,242
Government endowments accrued	11,973
Sundry accounts due	15,292
Total	£4,505,494

Amounts due by one municipality to another for balances on paration, £6,282, are not taken into account in either of these state- ents of assets and liabilities. Adding a sum of £4,857,380 on account twenty years' purchase of annual general rates, the total assets would e increased to £9,362,874.

The total municipal indebtedness of the incorporated districts outside e boundaries of the city of Sydney would thus appear to be only 15·18 er cent. of the total assets, or 23·45 per cent. of assets excluding roads. his consideration of municipalities as a whole, however, does not reveal e fact that some are struggling under a load of debt which is well nigh supportable.

The amalgamation of the forty-one metropolitan municipalities is a uestion which has lately attracted some attention, and various schemes ave been suggested, some for the unification of these municipalities under e central administration, leaving, perhaps, certain matters still to local thorities, the number of which would be reduced; and others merely roposing to unite two or three adjacent municipalities. It is not robable that any great reduction in the cost of administration would e effected by such a unification, as the salaries at present paid are not n a lavish scale; but there is no doubt that increased efficiency would e attained, and the expenditure on works and improvements sensibly educed. Interest charges on loans, moreover, would be considerably ssened. If the £728,235 owing by the suburban municipalities carried he rate paid by the city of Sydney, a saving of £13,500 per annum ould be effected; and in view of the increased importance and more conomical working of a Greater Sydney, a further reduction in the ates of future loans, either renewals or for fresh enterprises, might easonably be expected.

The Municipal Association of New South Wales was formed in 1883, watch over and protect the interests of the municipal bodies. In the st year there were 63 councils subscribing, while in 1897 the number as 133. The Mayor of Sydney is president of the Association *ex officio*. dvice is given to, and legal opinions obtained for, the members on ebatable points arising under the numerous municipal acts, and a neral meeting is held annually in Sydney, usually in the month of ptember.

WATER SUPPLY FOR COUNTRY TOWNS.

The Country Towns' Water Supply and Sewerage Act of 1880 was ssed with the object of assisting municipalities to construct general stems of water supply and sewerage. To the end of 1896, 28 municipal ncils, including Richmond, had availed themselves of the privileges ered as regards the former service; none, however, had profited by provisions with respect to sewerage. The amount required for rying out the works is advanced by the State. The municipality, wever, has the option of supervising and constructing the works, ling which the Government undertakes these duties. Under the original Act the sum advanced was to be repaid by instalment interest at the rate of 4 per cent. on the unpaid balances, each instalment to be equal to 6 per cent. of the total cost, and th payment to be made twelve months after the date of the transfer works to the municipality. But as it was found that the munici were unable to comply with these conditions, the Government, in passed an amending Act which granted them more favourable the rate of interest being reduced to 3½ per cent., and the yearly ments fixed at a maximum of 100.

The following is a statement of the works completed at the 30th 1897, with the amounts expended, and the sums payable annual the period of one hundred years, the first repayments having b due at various dates ranging from the 31st December, 1892, 31st December, 1896. In the calculation of these repayment interest on the expenditure has been added, and any payments councils, as well as sums remitted under the authority of the Act been deducted:—

Municipality.	Total Expenditure by the State.	Amount Payable Annually.	Municipality.	Total Expenditure by the State.
	£	£		£
Manly	37,820	1,368	Jerilderie	6,405
Albury	45,186	1,483	Lismore	9,396
Balranald	7,963	217	Lithgow	12,068
Bathurst	53,876	1,989	Nowra	11,532
Bourke	14,336	486	Nyngan	10,731
Cootamundra	11,645	394	Orange	30,942
Deniliquin	18,168	668	Wagga Wagga	37,272
Dubbo	13,986	551	Wentworth	9,665
Forbes	8,013	288	Wilcannia	8,000
Goulburn	55,184	1,989		
Hay	7,072	278	Total	409,260

The Manly works are included in this table, as, although constr under the Metropolitan Water and Sewerage Act of 1880, the favourable terms of the Country Towns Acts were granted in this

At Forbes, Hay, and Wilcannia, the works were constructed b municipal authorities, and the expenditure shown in the table i the actual cost of the works, but the Government valuation. works than those shown above are in course of construction the supervision of the Government, viz. :—

Municipality.	Expenditure to 30th June, 1897.	Municipality.
	£	
Armidale	37,521	Parkes
Coonamble	5,575	Tamworth
Junee	43,014	
Moama	6,507	Total
Moss Vale	15,640	

ll these works, with the exception of those at Tamworth, have been npleted during 1897, but up to December the total expenditure had been gazetted.

ix municipal councils have constructed works out of their own ources. The amounts already expended are as under :—

Municipality.	Expenditure to 3rd February, 1896.	Municipality.	Expenditure to 3rd February, 1896.
	£		£
Narrandera	8,400	Singleton	500
Parramatta	30,000	Windsor	6,500
Penrith	9,000		
Silverton	300	Total	54,700

he water supply works of Broken Hill and Silverton were concted by a private company under a special Act of Parliament passed 1888.

SEWERAGE WORKS.

s previously mentioned, no advantage has been taken of the Act viding for the carrying out of sewerage works in country towns. will be seen from the table given below, however, that sewerage tems are in existence in several districts; but with few exceptions operations are on a minor scale. The general system of sewerage ich is now being carried out in the metropolitan area will supersede isolated systems of some of the suburban districts, and the works eady constructed will eventually form part of the general scheme. e Metropolitan Board has already taken over the sewerage works structed by the City of Sydney and the Municipalities of Ashfield part), Balmain, Darlington, and Redfern. The cost of other munil works was as follows :—

Municipality.	Length.	Cost of Construction.	Municipality.	Length.	Cost of Construction.
	ms. chs.	£		ms. chs.	£
Annandale	3 6	2,334	Murrumburrah	0 2	90
Ashfield	1 16	6,094	Narrandera	0 25	250
Balmain	....	2,000	Newcastle	11 20	16,000
Burwood	0 56	2,400	Richmond	0 18	1,000
Camperdown	....	5,160	Singleton	1 0	1,000
Glebe	12 19	16,248	Stockton	0 15	182
Leichhardt	....	4,500	Wagga Wagga	....	534
North Sydney	8 0	5,000	Wentworth	0 20	165
Waterloo	....	4,000	Wickham	0 60	700
Waverley	1 60	3,230	Wilcannia	....	450
Willoughby	....	100			
Goulburn	....	1,420	Total		72,857

Gas and Electric Lighting Works.

The Municipalities Act of 1867 authorises the construction of for public lighting, by gas or otherwise, and the Municipal Ga of 1884 and 1886 give the power to provide private consumers gas; but as regards electric lighting this cannot be done witho authority of a special Act. The following statement shows the m palities which have constructed gas-works, and the value of the sa February, 1896:—

Municipality.	Value of Works.	Municipality.	Value of Works.
	£		£
Armidale	12,000	Maitland, East	9,500
Bathurst	22,657	Molong	4,500
Bega	8,000	Muswellbrook	4,500
Bowral	7,400	Orange	13,000
Cootamundra	7,649	Wagga Wagga	17,677
Dubbo	9,000	Waratah	10,035
Glen Innes	6,806	Yass	7,500
Lismore	7,000		
Lithgow	6,500		
Liverpool	7,000	Total £	160,724

Similar information is given below of municipalities which erected electric-lighting plant:—

Municipality.	Value of Plant.	Municipality.	Value of Plant.
	£		£
Redfern	19,000	Tamworth	3,200
Lambton	7,000	Young	9,000
Newcastle	10,000		
Penrith	9,000	Total £	57,200

As already mentioned, the City of Sydney lately obtained pow erect an electric-lighting plant, and to raise a loan of £250,000 this purpose. The following municipalities are supplied with ele light by private companies:—Canterbury (part of streets), Enf Broken Hill (houses only), and Moss Vale.

Streets and Lanes.

The length of streets and lanes within the boundaries of the Cit Sydney is 115 miles. Practically all the roadways are formed, ker and either wood-blocked or metalled; the area laid down of the for material to the end of 1896 was over 81 acres, exclusive of 20, square yards of wood-blocking laid by the Government at Circular Q The value to the city of these streets was estimated at £1,476, which sum includes £155,000 for footpaths, asphalted or flag hroughout the suburbs the extent of roads and streets was about 1,485 iles, of which 788 miles were metalled, ballasted, or gravelled, 231 iles formed only, 223 miles cleared, and 243 miles natural surface; id the approximate value of these roadways, with culverts, bridges, id similar works, may be set down at £1,705,230. In the other unicipalities there were 1,861 miles of metalled, ballasted, or gravelled ads, 1,173 formed only, 1,420 miles cleared, and 1,880 miles natural rface; in all 6,334 miles, the value of these improvements being about 1,598,270. In the above estimates of values, Government roads have ot been included, nor is the value of land occupied taken into account.

WATER SUPPLY AND SEWERAGE.

With the rapid aggregation of the population in the metropolitan rea came the necessity of establishing a system of water supply and ewerage equal to the needs of a great city. Prior to 1887 the control f the water supply of the city and suburbs was in the hands of the City Corporation, and the supply was entirely inadequate to meet the demands pon it, while the sewerage system was highly objectionable and nefficient. Several of the suburban Councils had also constructed local ystems, as already mentioned.

In 1867 a Royal Commission was appointed to investigate and report pon proposals for supplying water to the city and suburbs. Two years ater, after various projects had been considered, the Commissioners ubmitted a report recommending the adoption of the "Upper Nepean heme." A second Royal Commission was appointed in 1875 to report n a sewerage scheme for the metropolis. The report of this Commission as presented in 1877, and forms the basis of the system now being rried out. As much controversy was evoked by the recommendations these Commissions, the Government obtained the services of an gineer from England, and, after much patient investigation, he proved of the systems proposed and recommended them for adoption, d an Act was passed in 1880 to authorise the works being carried out. e first contract in connection with the construction of water supply rks was undertaken in November, 1879, and that of sewerage in ugust, 1880.

In March, 1888, the water supply works had so far advanced that the vernment passed an Act establishing a Board of Administration, der the title of the Metropolitan Board of Water Supply and Sewere, to regulate the water supply and sewerage services in the county of mberland, including those under the control of the City Council. The nagement of the former service was transferred to the Board in May, 88, and of the latter in September, 1889. The total length of water ins taken over was 355 miles, while on the 30th June, 1897, this had reased to 964 miles, exclusive of trunk mains. There were 70¼ miles sewers in 1889, lengthened to 256 miles in 1897. The Board consists seven members, three of whom are appointed by the Government, two by the City Council, and two by the suburban and country munici within the county of Cumberland which are supplied with water. Board is subject to the general control of the Minister for Works— vision which was considered necessary, as the Government were adv the whole of the money for the construction of the works, the am advanced constituting part of the public debt of the colony.

METROPOLITAN WATER SUPPLY.

As early as 1850 authority was given by the Legislative Counc the City Corporation for the construction of water and sewerage w and a system of water supply from the Lachlan, Bunnerong, and Bo Swamps was adopted. By this scheme the waters of the stream dr these swamps were intercepted at a point near the shore of Botany B A pumping plant was erected here, and the water raised to Cr street Reservoir, 141 feet above the level of the sea; thence the wa was pumped into Paddington Reservoir, at an elevation of 21 above sea-level; and to Woollahra, 282 feet above sea-level. The of these works was £1,719,565. This system has since been super by what is known as the "Upper Nepean scheme" already referred which was designed and carried out by the late Mr. E. O. Mor M.I.C.E. The works were made available in 1888, and have been ample to provide a constant supply for the wants of the incre population of Sydney and suburbs.

The sources of supply are the waters of the Nepean, Catarac Cordeaux Rivers, draining an area of 354 square miles, a catch enjoying a copious and regular rainfall. The off-take works are bu a height of 437 feet above the level of the sea, and the water f through a series of conduits—partly tunnel, partly open canal, and places wrought-iron aqueducts—to Prospect Reservoir, a distanc 40 miles from the farthest source of supply. Here a storage reser has been constructed, covering an area, when full, of 1,261 acres, capable of holding about 11,000 million gallons, of which nearly 7,0 millions are available for supply by gravitation. The top water lev 195 feet above sea-level. The dam is 7,300 feet long, 30 feet wide top, and is carried to a height of 84 feet at the centre; it contains 2,591,950 cubic yards of earthwork, and its water face is covered w heavy bluestone pitching. The conduits above Prospect Reservoir hav a capacity of 150 million gallons per day, and for 10 miles below th reservoir the capacity of the canals and pipes equals a maximum 50 million gallons, while for the last 11 miles the pipes have a capa of 17·5 million gallons daily. In this work there are:—

Tunnels	11⅗	miles.
Open canals	33¼	,,
Wrought-iron pipes, 8 ft., 7 ft. 6 in., and 6 ft. diameter	5⅖	,,
Cast-iron pipes, 48 in., 42 in., and 30 in. diameter	13	,,
Total	63¼	miles.

From Prospect the water flows 5 miles by open canal to the Pipe Head Basin, thence 5 miles by 6-feet wrought-iron pipes to the Potts' Hill Balance Reservoir, which has a capacity of 100 million gallons, and covers 24½ acres. This reservoir was designed to tide over any interruption in the supply from Prospect, as well as to prevent fluctuation at the head of pressure. The duplication of the 6-ft. pipe between the Basin and Potts' Hill, at a cost of £70,205, was recommended, in July, 1897, by the Public Works Committee, as also the raising of the sides of the canal between Prospect and the Basin, thus increasing its capacity to fifty-three and a half million gallons per day, at a cost of £39,112. At Potts' Hill the water passes through a series of copper-gauze screens, and is then conducted by two mains into Sydney. At Lewisham a bifurcation takes place in one of these mains; one branch supplying the Petersham Reservoir, the other continuing to Crown-street. The Petersham Reservoir is 166 feet above high-water mark, is built of brick, and has a capacity of 2,157,000 gallons. The new 48-in. main, laid in 1893, from Potts' Hill direct to Crown-street, is worked alternately with the old. These two trunk mains are connected at Petersham as an intermediate spot. The Crown-street Reservoir is 21 miles from Prospect. It is of brick and contains 3¼ million gallons, the top water-level being 141 feet above high-water mark. Owing to the topographical configuration of the reticulated area, pumping for the purpose of supplying the upper zones has largely to be resorted to, and no less than 3,088¾ million gallons, or nearly 50 per cent. of the whole supply, were thus raised during the twelve months ended June, 1897. At Crown-street is situated the main pumping station, where are erected three sets of compound high-duty pumping engines, viz., two Worthingtons, and one designed and erected by the Mort's Dock and Engineering Company. No. 1 Worthington is capable of raising 500,000 gallons per hour to the Paddington Reservoir, which is 73 feet above Crown-street, and is of 2,000,000 gallons capacity. No. 2 Worthington can raise 210,000 gallons per hour to the Woollahra Reservoir, 141 feet above Crown-street, and of 1,000,000 gallons capacity; or, if necessary, 200,000 gallons per hour to the Waverley Reservoir, which is 219 feet above the level of the pumps, and has a capacity of 1,087,000 gallons; besides supplying two supplemental tanks in Waverley Park, 20 feet higher, and containing 40,000 gallons. No. 3 (Mort's) is capable of raising 100,000 gallons per hour to the Waverley tanks. A new reservoir, of a capacity of 18,500,000 gallons, is being constructed in the Centennial Park, at a height of 245 feet, for the purpose of ensuring a larger bulk of water within the city limits. This, it is believed, will be the largest service tank in the Southern hemisphere. At Ashfield there is a 100,000 gallon wrought-iron tank at an elevation of 223 feet above sea-level. This tank is fed from the Woollahra Reservoir by the Petersham trunk main, and supplies the higher parts of the district.

North Sydney receives its supply from Potts' Hill, *viâ* Ryde, where there is a reservoir containing 2,116,000 gallons, from which the water

is pumped into a million gallon tank at Ryde village, 234 feet a
level, and, by a continuation of the same main, into a pair of
a joint capacity of 3,000,000 gallons, at Chatswood, at an el
370 feet above high-water mark. A small pumping plant h
erected at Chatswood, and fills a 40,000-gallon elevated tank
roongah, 7½ miles distant, at an elevation of 717 feet above s
and from Wahroongah the water flows as far as Hornsby, 13
the north-west of Port Jackson.

The districts of Campbelltown and Liverpool are supplied f
main canal by gravitation. At the latter place, a 4,000,000-gallon
reservoir has been constructed, for the purpose of tiding o
interruption in the flow from the canal. Other districts lyin
Sydney, as Smithfield, Granville, Auburn, and Rookwood, are
plied *en route*; and at Smithfield there is a 100,000-gallon
tank, the top water of which is 175 feet above sea-level. At P
there are two tanks 270 feet above sea-level, one of which has a
of 1,000,000 gallons, and the other of 22,800 gallons. These t
filled by a Worthington pumping plant at Carlton, which has
power of 30,000 gallons per hour. The farthest point sout
reached by the reticulation is Sandringham, distant 10 mil
Redfern Railway Station; so that the Sydney water supply
range of 23 miles from north to south. The length of th
exclusive of trunk mains, is 964 miles.

The total volume of water stored in the Potts' Hill and othe
reservoirs below it, is as under :—

South Sydney	100,614,000	gallons.
North Sydney	6,156,000	,,
Total	106,770,000	,,

An analysis made by the Government Analyst in June, 1897,
that the water was perfectly suitable for all purposes of a tow
supply; and this statement was confirmed by an independent
made about the same time.

The number of houses connected with the metropolitan wate
on the 30th June, 1897, was 87,190, and the number of
supplied, 418,512. The average daily consumption during t
ended June, 1897, was 17,659,357 gallons, equivalent to 20
per house, and to 42·20 gallons per head of population supplie
latter quantity was 1·44 gallons in excess of the quantity
during the previous eighteen months. The total amount supplie
the year was no less than 6,446 million gallons, exclusive of
million gallons supplied free of charge to public hospitals, c
institutions, etc., and of 340 millions also supplied free to pu
and for street-watering and, in cases where no sewers were a
gutter-flushing.

The revenue from the Water Service Branch during the year ended 30th June, 1897, was £175,984, and the expenditure £188,221, of which £26,221 was for maintenance, £14,600 for management, £144,050 for interest on loans, and £3,350 depreciation account. These figures show an increase of £1,627 in the receipts as compared with 1896. In order to counterbalance the falling off in the municipal assessments, the water-rate was raised by 1d. in the £ from the 1st January, 1895, but a discount was allowed from the same date for prompt payment.

After allowing for loans and advances from Government to the amount of £3,782,168; the City Council Water Fund and Debentures, £462,382; rates overpaid, £582; and other liabilities, £70,152; and on the other side, for the value of the water supply works, lands, and buildings, reservoirs, and pumping plant, £4,265,621; the amount due for rates, etc., £34,090; for the value of stores, working plant, and tools, £25,306; and for other assets, £3,913;—the balance-sheet on the 30th June, 1897, showed a sum of £13,646 to the credit of the revenue account. The revenue for the twelve months ended June, 1897, showed a return of 3·11 per cent. on the actual capital debt of £4,244,550. The rates of interest payable are 3·79 per cent. on the loan expenditure by the State, and from 4 to 6 per cent. on municipal debentures taken over. The Board, however, do not debit their account with interest on the City Council Water Fund, £377,382, on the ground that this expenditure was made from rates contributed by the citizens, and they, therefore, show a return of 3·50 per cent. for the year 1896–7 instead of 3·11 per cent. set down below. The rates for the other years differ for the same reason. The Royal Commission which investigated the affairs of the Board has recommended that the Government should definitely determine the amount of the capital debt on which interest should be set aside.

The subjoined statement gives the transactions for each year during which the Board was in operation:—

Year.	Capital Cost.		Revenue.	Expenditure.	Houses supplied.	Population served.	Supply.	
	Amount.	Return per cent.					Daily (average).	Yearly.
	£		£	£	No.	No.	gallons.	gallons.
1888	3,004,557	1·68	125,486	83,482	61,718	296,246	8,144,169	2,972,621,623
1889	3,088,068	3·31	138,923	144,642	67,924	326,035	8,820,009	3,219,244,159
1890	3,189,080	3·48	145,990	147,310	71,501	343,204	8,486,034	3,097,402,486
1891	3,306,649	3·85	165,831	154,154	76,093	365,246	9,540,102	3,482,237,514
1892	3,394,581	3·26	155,886	161,825	78,926	378,885	12,129,152	4,439,273,890
1893	3,409,721	3·52	157,427	158,840	81,288	390,182	12,533,652	4,574,782,838
1894	3,440,614	3·54	161,167	160,706	83,621	401,380	13,738,874	5,014,689,009
*1895	4,078,979	1·60	85,364	91,852	....	....	16,645,014	9,194,922,872
1895–6	4,154,261	3·21	174,357	182,075	85,059	408,282		
1896–7	4,244,550	3·11	175,984	188,221	87,190	418,512	17,659,357	6,445,665,328

* Six months ended 30th June.

The amounts of the capital debt, 1895–6 and 1896–7, do not include £32,341, the proportion of the cost of offices chargeable to the Water Supply Branch, as the Board charge their working expenses with rent on their new offices.

As already stated, the average daily supply of water to persons in the metropolitan district during the year ended June, 1897, was 42·20 gallons, as against 40·76 gallons during the eighteen months ended June, 1896, and 34·23 gallons in 1894. The Sydney average is contrasted below with the latest available averages of some other cities:—

City.	Average Daily Supply.	City.	Average Daily Supply.
	gallons.		gallons.
Sydney	42	Hobart	60
Melbourne	49	London	31
Auckland	44	Berlin	13
Dunedin	64	Paris	36

THE HUNTER DISTRICT WATER SUPPLY.

The water supply works of the Lower Hunter were constructed by the Government, under the provisions of the Country Towns' Water Supply and Sewerage Act of 1880. During 1892, under the authority of a special Act, a Board was established on similar lines to those of the Metropolitan Water and Sewerage Board, the number of members also being the same—three being nominated by the Governor, one elected by the Municipal Council of Newcastle, two by the adjacent municipalities, and one by the municipalities of East and West Maitland and Morpeth. The following municipalities were proclaimed within the area of the Board's jurisdiction:—Adamstown, Carrington, Hamilton, Lambton, Lambton (New), East Maitland, West Maitland, Merewether, Morpeth, Newcastle, Plattsburg, Wallsend, Waratah, and Wickham, besides the unincorporated townships of Minmi and Cockle Creek.

The operations of the Board are at present entirely confined to water supply, no sewerage works as yet having been attempted. Particulars relating to the operations of the Board are given below:—

Year.	Capital Cost.		Revenue.	Expenditure, including Interest.	Houses Supplied.	Population Served.	Supply.	
	Amount.	Return per cent.					Daily (average).	Yearly.
	£		£	£	No.	No.	gallons.	gallons.
1892-3	404,407	3·52	22,651	22,551	3,421	17,105	451,005	164,616,
1893-4	405,871	2·96	21,406	23,591	3,848	19,240	418,766	152,849,
1894-5	412,732	2·75	20,367	23,467	4,660	23,300	518,038	189,084,
1895-6	415,784	2·88	20,779	23,362	6,246	31,230	606,728	222,062,
1896-7	428,025	3·16	22,518	23,984	6,931	34,655	731,451	266,979,

By the Act of 1892, and an amending Act passed in 1894, the capital debt was to be liquidated by annual instalments distributed over 100 years, interest being reckoned at 3½ per cent. In November, 1897, however, a further amending Act was passed, abrogating the repayment of expenditure on "permanent works," and leaving the number of annual instalments in liquidation of the cost of "renewable works" to be fixed by the Government from year to year.

Evidence given before a Royal Commission which sat in 1897 showed that the Board estimated their deficiency on the working for five years at £26,700, without any provision having been made for the sinking funds prescribed by the previous Acts. It was urged by the Board that so much of the capital debt should be remitted as would bring down the amount of interest to such a sum as would be covered by the prospective revenue.

RICHMOND WATER SUPPLY.

The municipality of Richmond availed itself of the Country Towns' Water Supply and Sewerage Act, and carried out a scheme of water supply. The local Municipal Council administered the service until May, 1893, when it was temporarily transferred, pending the obtaining of legal powers, to the Metropolitan Board. As only the premises of those persons who signed an agreement to take the water can be rated, the revenue from the service is greatly restricted. The accounts are kept separate from those of the metropolitan supply. A small pumping plant was erected on the left bank of the Hawkesbury, just below the confluence of the Grose and the Nepean, as well as a circular brick tank having a capacity of 225,000 gallons, the top water being 206 feet above sea level. The capital cost of the service, together with the revenue and the liability against revenue, are shown hereunder:—

Year.	Capital Cost.	Annual Liability against Revenue.			Revenue.
		Interest at 4 per cent.	Maintenance (including proportion of head-office expenses).	Total.	
	£	£	£	£	£
1893	12,340	494	315	809	400
1894	12,340	494	638	1,132	439
1895-6	12,480	746	707	1,453	884
1896-7	12,636	505	383	888	658

The figures shown for 1893 are for the seven months from 1st June to 31st December only, while those for 1895–6 cover the eighteen months from 1st January, 1895, to 30th June, 1896.

METROPOLITAN SEWERAGE WORKS.

The original sewerage works at Sydney were begun in 1854, and in 1889, the date of transfer to the Board, there were, as stated on a previous page, 70·27 miles of old city sewers in existence. All these old sewers are being gradually renovated and repaired, the cost being provided from revenue. The annual cost for maintenance is considerably lessened by these renovations. The works now being carried out will, when completed, drain the whole of the northern and southern slopes of the city and suburbs, discharging the sewerage of the former into the ocean between Bondi and South Head, and of the latter at a sewerage farm on the shores of Botany Bay. Owing to the neglect of the former lessee to undertake the necessary works this farm is now worked by the Board. During the twelve months ended June, 1897, the average daily flow of sewage on to the farm was 2,361,600 gallons, and the total quantity of silt removed from the screening chambers and deposited on the farm, 1,975 cubic yards. The two main outfalls have been completed, but the reticulation works in the suburbs will yet take some considerable time to construct before the whole area profits by the system. The subjoined statement gives the transactions for each year since the sewerage system has been under the control of the Board. The capital debt for the last two years is exclusive of £32,452, being a proportion of cost of the new offices of the Board, as the Board have debited their working expenses with rent on these new offices:—

Year.	Capital Cost.		Revenue.	Expenditure.	Houses connected.	Population served.	Length of Sewers.	Length of Storm-water drains.
	Amount.	Return per cent.						
	£		£	£	No.	No.	miles.	miles.
1890	1,281,045	3·82	81,800	67,026	22,765	109,272	122·03	3·15
1891	1,447,287	3·86	81,302	71,906	26,884	129,043	148·02	4·38
1892	1,606,948	3·77	87,927	79,543	31,402	150,729	172·94	6·62
1893	1,691,462	3·93	93,661	85,363	36,062	173,097	182·34	9·10
1894	1,745,120	3·72	93,134	89,237	39,965	191,832	201·95	9·82
1895*	1,831,611	1·56	43,110	46,605	......	......	......	...
1895-6	1,892,256	2·86	85,486	98,748	44,462	213,417	230·20	14·42
1896-7	2,018,120	2·82	87,652	101,994	47,593	228,446	255·76	18·41

* Six months ended June 30th.

During the twelve months ended June, 1897, 2,417 tons of silt were removed from the sewers, and the bulk of it deposited on Government reclamation works. About 3,530 cubic yards of deposit were also taken from the storm-water drains.

Up to the 30th June, 1897, there had been constructed 185·49 miles of new sewers, and 18·41 miles of storm-water drains, making, together with the old city sewers, a total of 274·17 miles of sewers and drains, of which length 210·00 miles were ventilated, the aggregate length the ventilating shafts erected being 99,397 feet. The number of houses connected and of population served at that date was 47,593 and 228,446 respectively.

The revenue of the Board from sewerage during the year ended June, 1897, was £87,652, chiefly from rates; and the expenditure £101,994, viz., £18,918 for maintenance, £10,763 for management, £71,328 for interest on loan capital and debentures taken over from the Municipal Councils, and £985 for depreciation. No interest, however, is debited by the Board to their account on £103,431 paid for sewerage works out of Consolidated Revenue. If this were done, the return per cent. yielded during the year would be 2·82, as shown in the above table, instead of 3·02 set down by the Board. A like difference exists in the return for previous years.

The funds necessary for the maintenance and management of the Water Supply and Sewerage services, as well as the sum required to pay interest on the capital debt, are obtained by rates levied on the properties situated in the districts benefited by the systems. The assessments of the Municipal Councils are generally accepted by the Boards as the values on which to strike their special rates. In cases of more than ordinary consumption of water, a charge is made according to the quantity used, while various fixed charges are imposed for the use of water in certain trades and callings, for gardens, and for the use of animals.

LOCAL OPTION.

In connection with local self-government, by means of the municipal system, occurs the only instance in which the principle of what is known as local option has been put into operation in the colony. For many years there was a strong agitation in favour of local option, or the right of the inhabitants of any district to control the liquor traffic in that district, and on several occasions unsuccessful attempts were made to legislate upon the subject. In the year 1882, however, an instalment of the principle was included in the Licensing Act then passed, which, with an amendment made in the following year, is still in force. These measures provide that in every municipality, or ward of a municipality, a local option vote shall be taken every three years, at the election for aldermen, in which the ratepayers are permitted to vote either "Yes" or "No" on two questions: (1) Whether any new publicans' licenses shall be granted during the coming three years in the municipality or ward in question; and (2) whether any removals of publicans' licenses shall be allowed within the same period. Over eleven-twentieths of the votes polled are required to make the vote operative in the negative. The advocates of local option are not content with this partial adoption of the principle; they urge its extension to every electorate in the colony, all persons on the electoral roll to have the right to vote. They further propose to place it in the power of a majority of the electors to say whether licensed public-houses shall be suffered to exist at all. The extreme advocates of local option also contend that women should have the right to vote upon this question as well as men, and that public-houses should be abolished without compensation to the occupants or owners. Although the local option vote is taken once in three years in every municipality, or ward of a municipality, the year when it is taken is not the same in all. During the three years 1895, 1896, and 1897, only 10,105 electors voted on the first, and 10,663 on the second question, in 222 country municipalities or wards of municipalities. In 162 cases the vote was against, and in 60 cases in favour of the granting of new licenses; while in 115 cases there was a majority in favour of, and in 107 cases against removals. The total number of electors on the municipal rolls in February, 1896, was 177,634; and allowing for the fact that a considerable number of these were for various reason disqualified from voting, the small number of votes recorded on the local option question shows, nevertheless, a remarkable apathy on the part of the persons entitled to vote. The results of the latest voting in 37 suburban municipalities, including 31 where the vote was taken in February, 1897, were that out of a total of 67,676 electors on the roll, only 9,595 voted on the question of new licenses, viz., 3,117 for, and 6,478 against; and 9,115 on the question of removals, viz., 3,630 for, and 5,485 against. In the city of Sydney a vote was taken on 1st December, 1897, when, out of 22,428 voters on the roll, only 2,130 voted on the question of new licenses, viz., 787 in favour of, and 1,343 against; and 2,045 on the question of removals, viz., 903 in favour of, and 1,142 against. It would therefore appear that very little interest is taken in the matter except by the extreme advocates of temperance on the one hand, and those interested in the drink traffic on the other, while the general public is apathetic on the subject.

PARKS AND RECREATION RESERVES.

It has always been the policy of the State to provide the residents of incorporated towns with parks and reserves for public recreation, and the City of Sydney contains within its boundaries an extent of parks, squares, and public gardens larger than exist in most of the great cities of the world without regard even to area. They cover altogether 747 acres, or 26 per cent. of the whole of the city proper. In addition to these reserves, the inhabitants of Sydney have the use of 530 acres, formerly reserved for the water supply of the city, but now known as the Centennial Park. This magnificent recreation ground has been cleared and planted, and is laid out with walks and drives, so that it is becoming a favourite resort of the citizens. The suburban municipalities are also well provided for, as they contain, including the Centennial Park, about 2,306 acres of public parks and reserves, dedicated to, and in some cases purchased for, the people by the Government, or about 2½ per cent. of their aggregate area.

In addition to these parks and reserves, there was dedicated to the people, in December, 1879, a large area of land, situated about 16 miles south of the metropolis, and accessible by railway. This estate, now known as the National Park, with the additions subsequently made in 1880 and 1883, contains a total area of 36,320 acres, surrounding the picturesque bay of Port Hacking, and extending in a southerly direction towards the mountainous district of Illawarra. It is covered with magnificent virgin forests; the scenery is charming, and its beauties attract thousands of visitors.

Another large tract of land, designated Ku-ring-gai Chase, was dedicated in December, 1894, for public use. The area of the Chase is 35,300 acres, and comprises portions of the parishes of Broken Bay, Cowan, Gordon, and South Colah. This park lies not more than 10 miles north of Sydney, and is accessible by railway to within 5 miles, or by water *viâ* the Hawkesbury River, several of whose creeks, notably Cowan Creek, intersect its forests. To the 30th June, 1897, grants to the amount of £1,450 were made to the trustees for improvements, and a further sum of £250 was paid in the following month.

In the country districts reserves, extending often over 1,000,000 acres, have been proclaimed as temporary commons, whilst considerable areas have been from time to time dedicated as permanent commons attached to inland townships, which are otherwise well provided with parks and reserves within their boundaries.

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